DOCUMENT RESUME

ED 210 558 CE 030 883

AUTHOR Anderson, Carnell F.
TITLE The Post-Industrial Organization as a Learning Center.
PUB DATE 6 Nov 81
NOTE 127p.

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS *Adult Education; Humanism; *Industrial Training; Inplant Programs; Inservice Education; *Labor Force Development; *Management by Objectives; *Models; *Social Change
IDENTIFIERS *Andragogy

ABSTRACT

Two questions are answered in regard to the Andragogical Management-by-Objectives (AMBO) model in adult education within industry that focuses on the individual and is process-centered. The first question introduces and presents a justification for AMBO. Its philosophical foundations are described, and supporting learning theory arising from the humanistic position are overviewed. The concept of a "knowledge organization" is also discussed. Close attention is paid to underlying issues and rationale for modification of the MBO process as well as to andragogical theory. The detailed description of the AMBO model considers limitations, anticipated outcomes, and objectives of this model that calls for self-directed, proactive learning in a workplace context. The second question presents the policy statement which is meant to serve as a model for AMBO implementation. It proposes Andragogical Human Resources Development (AHRD) as the managerial policy statement, since AHRD attempts to merge an open systems model with a developmental model in order to facilitate social change. Topics covered include philosophical foundations, rationale, and legal precedent. An Andragogical System is discussed that illustrates the AMBO process operating with an AHRD organization. Bibliographies follow each question discussion, and a comprehensive bibliography concludes the paper. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED210558

#1

THE POST-INDUSTRIAL ORGANIZATION AS A LEARNING CENTER

Two Questions Submitted to

Professor Larry Berlin and Professor Hy Kornbluh

In complete fulfillment of the

Requirements for Candidacy Attainment

in K990

for the degree of Ph.D.

from the

School of Education

University of Michigan

Ann Arbor, Michigan 48109

November 6, 1981

Carmell F. Anderson
1317 - 18th Street
Bay City, Michigan 48706

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Carmell F. Anderson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE030883

ABSTRACT

Within industry, adult education has focused mainly on group training and development strategies. The Andragogical Management-by-Objectives (AMBO) model, described herein, focuses on the individual. As a process model, it is growth-centered; this is in contrast to the Management-by-Objectives system, which is problem-centered.

The first question introduces and presents a justification for AMBO; the second question presents the policy statement which is meant to serve as a model for its implementation.

As the managerial policy statement, Andragogical Human Resource Development (AHRD) attempts to merge an open systems model with a developmental model in order to facilitate social change.

PREFACE

Inasmuch as the two questions share the same philosophical bases and premises and since the Andragogical Management-by-Objectives process model cannot stand without the Andragogical Human Resource Development policy statement, this would seem to justify, in the interest of brevity, a combination of the Definition of Terms. This list is, therefore, presented solely within the text of the first question.

LIMITATIONS OF THE MODEL

The primary limitation applicable to both questions is its obvious inattention to group processes. This is overlooked, not because it is not important, but rather to present and to focus upon an alternate point of view. In addition, the author wishes to acknowledge certain political biases which are evident throughout the paper but which have been particularly addressed in the Introduction of the first question.

In terms of the Andragogical Management-by-Objectives (AMBO) model, such a model requires organizational support; and for this reason, its component systems model, Andragogical Human Resource Development (AHRD), is presented in the second question. Finally, both AMBO and AHRD are predicated on the following assumptions:

There is goodwill among all members of the organization

Everyone is operating on the same hierarchy of need level, i.e., self-actualization (see pages 16-7).

The organization is supportive of self-development and provides a means for individuals to self-nominate and to identify their need to grow

Everyone prefers responsibility to dependency; they are proactive rather than reactive

People want to create new and better futures for themselves, their organizations, and their society

Everyone prefers activity to passivity; they are not frightened by freedom

There is a general recognition of the need for a wise allocation of scarce natural and human resources all of which are to be used in a socially beneficial manner, and

A peaceful economic and technological climate exists with the absence of strikes, revolutions, wars, work stoppages, etc.

TABLE OF CONTENTS

Page

Question No. 1: Can a Management-by-Objectives model be developed that is congruent with the theory of andragogy?

The Emergence of Convergence: Andragogical Management-by Objectives

PART I

Introduction 1
Purpose 1
Definition of Terms Used 2
Need for the Model 7
Philosophical Foundations 9
An Overview of Supporting Learning Theory Arising from the Humanistic Position 15
The Knowledge Organization 19
Rights and Obligations 20
The Individual in the Knowledge Organization 22
Self-Actualizing Work in the Knowledge Organization 25
Need to Restructure Work 28

PART II

A Closer Look at Management-by-Objectives 29
Underlying Issues 31
Rationale for Modification of the MBO Process 32

PART III

Andragogy: The Art and Science of Helping Maturing Adults Learn 35
Andragogical Theory 36
Some Assumptions about Learners and Facilitators 37
Implications of the Need to be Self-Directing from a Managerial View 40
The Andragogical Process of Program Development 42
Andragogy from a Systems Approach 45

PART IV

The Andragogical Mangement-by-Objectives Model 46
Need for a Different Approach 47
Limitations of the Model 49
Anticipated Outcomes of the Model 49
Objectives of the Model 50
The Andragogical Management-by-Objectives Process Model 51
Reward System 57
Types of Growth Opportunities 58
Role of the Facilitator/Supervisor 58

Page

Mutual Articulation--A Closer Look 60
Goal Setting 61
Appraisal of Development 63
Reformulation 64
Summarizing the Model 64

PART V

Facts, Conclusions and Recommendations 66

Footnotes 68
Selected Bibliography 72

Question No. 2: In whay ways can an andragogical approach to Human Resource Development facilitate social change?

The Learning Organization: Situs of Social Change

PART I

Introduction 1
Purpose of the Model 1
Definition of Terms Used 3
Need for the Model 3
Philosophical Foundations 6
Rationale for Andragogical Human Resource Development 10
Legal Precedent 15

PART II

The System as a Whole 16

PART III

Andragogical Human Resource Development 19

PART IV

An Andragogical Systems Model 22
Sample Objectives Serving as the Basis for Evaluation at the Systems Level 24
Guidelines for the Successful Implementation of the AHRD Policy Model . 25

Page

Evaluation 26
Conclusion 28

PART V

Facts, Conclusions and Recommendations 29

Footnotes 31
Selected Bibliography 32

A Complete Bibliography for Both Questions 34

LIST OF TABLES

Question No. 1 Page

PART I

A Comparison of the Assumptions about Human Nature and Behavior Underlying Theory X and Theory Y Management Philosophy 11

PART II

PART III

Assumptions and Processes of Andragogy 36
Conditions of Learning and Principles of Teaching 38
Ways of Learning 41

PART IV

A Model for Assessing and Analyzing Performance 53

Question No. 2

PART I

Problems, Bureaucratic Solutions and Twentieth-Century Conditions 6
Some Characteristics of Static versus Innovative Organizations 11
Continuing Education: The Role of the Knowledge Organization 12

PART II

PART III

PART IV

Industrial Training Cost-Effectiveness Model 57

LIST OF FIGURES

Question No. 1 Page

Hierarchy of Needs in Step Form 16
Growth Relationships 25
The Management-by-Objectives Process 30
The Andragogical Process of Program Development 42
Basic Steps in Program Development 43
The Process of Translating Needs into Objectives 44
Individual Needs Shaping the Organization and the Society 45
Andragogy as a General Systems Model 45
A Model for Improving Performance and Results 53
The Andragogical Management-by-Objectives Participative Change Cycle . . . 56
Andragogical Management-by-Objectives from a Systems Approach 56
Andragogical Management-by-Objectives in the Knowledge Organization . . . 57

Question No. 2

The Circular Organization 8
Systems Model of the Knowledge Organization 17
The Andragogical Human Resource Development Organizational Chart 21
The Andragogical Systems Model 23
The AMBO/AHRD Model 23
Use of Natural Resources 27

Question No. 1: Can a Management-by-Objectives model be developed that is congruent with the theory of andragogy?

The Emergence of Convergence:

Andragogical Management-by-Objectives

PART I

Introduction

As a student of adult education and its applications to business and industry in the post-industrial era, I discovered that most intervention strategies that are employed by organizations which affect groups and individuals within groups are designed only in the interest of management. Such strategies, though well founded, neglect several factors; namely, the increased emphasis on the individual, rapidly rising expectations, greater demand for the right of participation at the workplace, and turbulent economic and technological conditions.

Purpose

The question thus presented itself to design an alternate model which focused on the individual in relation to the organization and one which was process-centered rather than problem-centered. Such a model would, therefore, be capable of responding to the above conditions.

The primary characteristics of this model would have to meet two major criteria: (1) allow for individual growth through work, i.e., task performance, which would change over time, and (2) legitimize opportunities for shared responsibilities for the shaping and attaining of mutually-defined organizational goals.

Although some experimentation is being done in terms of job enlargement, enrichment, and task rotation, most workers continue to perform tasks which have been broken down into very small units thus permitting them little or no opportunity to exert control over their own working environment. This situation, an outgrowth of Frederick W. Taylor's scientific management theory, is most generally referred to as Management-by-Objectives (MBO). Thus, the purpose was to identify an adult learning theory most conducive to integration with MBO. Due to its process/content

orientation, the theory of Malcolm S. Knowles, namely, andragogy, was determined to be uniquely suited to this plan and is, thus, presented herein.

Definition of Terms Used

Activity learning: Learning which occurs through the individual's own decision, participation, and experience.

Adult: A person who has achieved full physical development and who, as such, has won the right to be a fully participative member of society.

Adult education: "The process by which men and women (alone, in groups, or in institutional settings) seek to improve themselves and their society by increasing their skill, their knowledge, or their sensitiveness. Any process by which individuals, groups, or institutions try to help men and women improve in these ways."[1]

Andragogy: "The art and science of helping maturing beings learn."[2] That adult learning theory which refers to the notion that "adults have a psychological need to be self-directing; that their richest resource for learning is the analysis of their own experience; that they become ready to learn as they experience the need to learn in order to confront developmental tasks; and that their orientation toward learning is one of concern for immediate application."[3]

Andragogical model: Related to andragogy, this learning process, as developed by Malcolm S. Knowles, recognizes that the decision as to what is to be learned, how it is to be learned, and how it will be determined if it has been learned, is made through mutual negotiation between the learner and his/her environment.

Andragogical Management-by-Objectives (AMBO): A systematic, process-oriented learning strategy which the author has developed for implementation in the knowledge organization in order to raise the consciousness of individual workers to the continued need for self and competency development. As a modification of Management-by-Objectives (MBO), this design recognizes the individual's right to participate in self-fulfilling tasks in order to improve themselves, the organization, and society. As a model, AMBO provides the theoretical framework for the individual worker to undertake life-long learning activities as a prerequisite to self-fulfilling task performance at the workplace thereby providing opportunities for the individual to exert personal control through the organization to effect social change.

Andragogical Human Resource Development (AHRD): An adaptive organizational strategy which is congruent with the AMBO design. An AHRD organization represents the sum total of individual goals whose authority is based upon knowledge and who are managing and shaping the changes which occur in their environment. As a social intervention strategy, AHRD is an attempt to bring the individual, the organization, and the society into creative alignment. As a policy statement, AHRD calls for organizational restructuring so that the organization itself is perceived to be a learning center for the organization which, in itself, is developing over time.

Appraisal: "A subjective judgement of how well educational objectives have been achieved, often based in part on the results of measurement and akin to measurement as a part of evaluation."[4]

Business and Industry: This term refers basically to those activities encompassed by the private sector. These are profit-making companies that are organized to provide goods and/or services to a consuming public.

Competence: Worthy task performance, the indication of which is either countable, measureable, or observable.

Consensor: A computer program which allows employees to express their informed

views on organizationally related social policy quickly, frankly, and anonymously. A socio-econotronic device.

Curriculum: All the learning experiences which occur in conjunction with the learner and the organization's learning center resources.

Design: "The plan developed to guide educational activity in a situation or the plan which can be inferred by an analyst of that activity. Synonym: Program."[5]

Education: "Education is a process of acquisition of knowledge, skills, attitudes, and values by a learner with help from a facilitator and resource person . . . . Education is process centered."[6] ". . . education consists of those learning experiences provided to prepare an individual for a different job."[7]

Education episode: Begins when the adult learner or the integrator (see page 4) identifies a need to learn and who together negotiate a plan working toward the achievement of this learning goal.

Educational need: Something a person recognizes which s/he ought to learn for his/her own good, that of the organization and/or that of the society. This represents the gap between present knowledge and/or ability and future knowledge or ability.

Environment: For the purposes of this paper, this term shall refer to the individual's perception of his/her work environment, i.e., conditions, wages, and hours. However, AMBO attempts to raise the consciousness of the environment to include the economic and political environment of the workplace. From the company's point of view, there are two environments, i.e., internal and external.

Evaluation: "The determination of the extent to which an educational objective has been accomplished. Evaluation includes the two closely related processes of measurement and appraisal."[8] When this process is undertaken by the self-directed learner, self-assessment or self-appraisal may occur.

Experiential learning: Process-oriented learning whereby discovery learning is enhanced through inter-active prescribed activity.

Facilitator: One who helps a learner to perceive reality differently. A person who helps to remove obstacles to learning or self-growth; one who assists in task restructuring so that the task is self-actualizing. This person manages the process under which the learning content will be acquired and provides the resources necessary for its acquisition. The facilitator places focus on what is happening to the learner rather than on what s/he is doing; this requires a divestiture of the traditional authority role and role of expert to that of a co-learner helping co-creators.

A facilitator is one who confirms the individual as a person through his/her actions that they both believe relate to the person's goals. There is mutual recognition of the individual as a person and the individual's self-image is confirmed.[9] Synonyms: Helper, mentor, supervisor, integrator, learning specialist.

Framework: "The fundamental theoretical construct used in a situation to plan or to analyze an education design. Synonym: Model."[10]

Goal: "A statement describing a broad or abstract idea, state or condition."[11]

Human Resource Development (HRD): Those organized activities which are conducted within a specified time and designed to bring about behavioral change in employees.[12] As a general term, this encompasses activities which are variously described as training, education, and development, all related to helping the employee to perform his/her activities for an organization. One aspect of Organizational Development (OD), this activity is necessary if the potential of workers is to be realized.

Implied work contract: That level of energy which the worker decides is appropriate to apply to the performance of his/her job as contrasted with the supervisor's concept of the level of energy which should be applied to the job.

Input: Services, goods, and assets (including human resources) which are used by an organization or an individual in the production of output.

Institution: A certain type of organization that is important in society, that has lasted for a long time and one that has a strong sense of identity.

Integration: This process requires a broadening of the framework between parties involved taking into account diverse interests and different courses of action so that all parties experience a "win-win" situation. This process recognizes that the organization's power resides in the power of human beings to control their environment.

Integrator: An organization's learning facilitator who is utilizing the AMBO/AHRD process model; one who facilitates learning through the AMBO/AHRD process by making things happen with understandings, values, interests and attitudes, and skills as they relate to the worker and to his/her environment. One who helps to identify the emergence of common interests.

Job rotation: Job mobility within the organization which results from tasks which have been structured to successively expose the worker to more advanced growth opportunities.

Knowledge: "A cognitive or intellective mental component acquired and retained through education or experience. Here taken to be one of the three major kinds of inter-related educational accomplishments, the others being sensitiveness and skill. Synonym: Information."[13]

Knowledge trajectory: Originated by Toffler, this refers to a computerized knowledge map, a profile of the individual's learning abilities, accomplishments, competencies, and understandings. This is stored in the organization's computer profile file and indicates the person's developmental course in terms of life and task accomplishment. Input originates with the learning contract.

Learner: "One who increases his skill, his knowledge, or his sensitiveness. This result may be brought about as a result of purposefully educational effort on his part, purposefully educational effort on the part of an educator, or as a by-product of a random activity or one designed to achieve essentially non-educational purposes."[14] "An active, initiative-taking inquirer; a self-directing organism who is competent to diagnose his/her own needs and to translate these needs into learning objectives."[15]

Learning: Related to the broader growth process of personal development and maturation. It is dependent upon the private purposes of the learners.[16] Learning-by-doing is the reward for performance of the task, e.g., the reward of performance is self-discovery and self-actualization. Learning becomes assimilated (integrated) only when it fits with the person's present meanings, needs, and purposes. Learning is the legitimization of new behaviors or understandings as a result of new perceptions of experience, reality, or order.

In this paper, learning shall refer to those growth activities undertaken by workers in a knowledge organization. It will refer to changes in behavior which facilitate the achievement of personal and organizational goals which will facilitate and legitimize peaceful social change.

Learning Center: Location of a knowledge organization's learning specialists, professional adult educators, learning resources, and computer files related to individual growth and development.

Learning consultant: On-site adult education professional whose role it is to assist the organization's learning specialists in discharging their responsibilities in keeping with AMBO/AHRD policy. A person who integrates community and industry learning resources and activities, assists in coordinating community and industrial learning needs and resources through representation on local and regional education councils, assesses over-all organization learning performance, obtains and utilizes Federal and State tax credits for educational programs, and coordinates training activities at the community, State, and Federal levels.

Learning specialist: An individual whose job it is to devise ways in which the organization can acquire and use knowledge, skills, attitudes, understandings, and experience to achieve mutually beneficial social goals through the integration of all life segments of the individual worker. Persons whose role it is to insure that all integrators are aware of their educational responsibilities with their fellow workers, the organization, and their society. Persons who assist the integrators in discharging their responsibilities in keeping with the AMBO/AHRD design.

Learning project: "A series of related episodes which add up to at least 7 hours over a six-month period. In each episode, the dominant motivation is to gain and to retain definite knowledge and skill for a certain period of time. Knowledge and skill includes any positive or desired changes or improvements which effect changes in the person or in the person's behavior."[17]

Learning objectives: These are the skills or behavior changes that are identified and striven for through the process of mutual articulation.

Lifelong education: The "learning [theory] which takes into account physical, emotional, social, spiritual, and occupational development throughout the life span; that explains learning as a process of inquiry and illuminates the competencies necessary to engage in this process; and that provides guidelines for performance of new roles required to facilitate that process."[18]

Management-by-Objectives (MBO): A refinement of scientific management and, as such, is almost exclusively preoccupied with "structural" or static elements of the organization. Under MBO, the task to be completed is broken down into very small units and presented to the operator at a pace which s/he can rarely control. As a system, MBO is neutral to value judgements. Negotiation is limited to the methods to use or when to use them. As a process, MBO is oriented toward the accomplishment of predetermined objectives at some point in the future. MBO is "autocratic, top-down goal setting."[19]

Mentor: Person whose purpose it is to lead the learner from dependence to independence, full or part-time activity, challenging the learner or acting merely as a resource person or guide to other resources requiring the learners to take full initiative for their own inquiry.[20] Synonyms: Facilitator, integrator, supervisor.

Mutual Articulation (MA): Through verbal exchange with an integrator, opportunities will be created or discovered for the individual worker to build new values in an attempt to reorganize the organization and society so that the maximum number of informed persons can be involved in making the maximum number of wise decisions in instances effecting them and their fellows. Such exchange provides the basis for the refinement, reformulation, and reintegration of an indiviudal's knowledge with that of his/her own environment and experience. It refers to self and system corrections; a means for consciousness to merge. It is the recognition of the mutuality of interest we all share which needs to be communicated to tie together human interests. This process is characterized by justice, fairness, and caring concern for the other, and a commitment to work with and for the other over time. It provides the setting for the individual to present one's own key job elements, to negotiate their performance through individualized rewards, and the establishment of mutually-agreed upon means of evaluation through self-assessment processes.

MA refers to the verbalized communication which occurs during the integrative process and which is culminated in the form of a learning contract which ties evaluation to continuing education. The learning contract may be stored in the computer's Personally Programed Development (PPD) file.

This strategy seeks to reduce internal and external conflicts which arise out of the production situation due to the multiplicity of human and organizational interests. Synonyms: Social transformation through the organization, social evolution, participation.

Objective: "An intended result or an educational activity or a guiding policy which is intended to achieve such a result. Objectives may be stated either as desired accomplishments or as principles. An objective may be known prior to the activity, emerge while it is occurring, or be perceived subsequently. Synonyms: Aim, goal, end, purpose."[21] (See Learning objectives.)

Andragogically speaking, "objectives are needs which have been filtered through institutional purposes and philosophies, and feasibility which includes the 'psychology of learning' and the interests of the clientele . . . . Objectives, in this sense, may be divided into two categories, operational and educational."[22]

Organization: A body of people working together to achieve individual and common goals. A formal organization, specifically an open system. Synonyms: Enterprise, industry, knowledge organization.

Organizational Development (OD): A process of planned change operative within a system using behavioral science knowledge. Encompassing the HRD educational strategy, which is based upon the training of groups or relationships through groups rather than on individuals per se, it refers to the long-range efforts of the organization to improve its problem-solving capacities and its ability to cope with changes in its external environment. It is an effort to integrate individual goals with organizational goals through group processes to attain greater organizational productivity.

Participation: The inherent right of the individual worker to act individually and with others in order to grow personally and to shape the environment in which they find themselves. Herein this term shall refer to the individual's ability to influence and shape the organization's interaction with its socio-politico-econotronic environment to achieve social transformation. This activity is seen in terms of a process through which workers gain influence and power along a continuum. Participation through MA is one form of participation uniquely designed for the knowledge organization to achieve personal growth and social change. Synonyms: Self-awareness, self-development, self-growth, development, worker participation.

Participatory training: An educational strategy directed toward human growth and the actualization of human potential and toward achieving more opportunities for industrial democracy. Synonym: AMBO.

Reformulation: One outcome of the self-assessment process whereby feedback is corrected and learning goals are refined, clarified, or changed.

Self-actualization: The desire to become what one is capable of becoming.[23] Encompasses Maslow's concept of self-actualizing (S-A) work [via job restructuring and worker participation]. Working with and through individuals to accomplish common goals. Synonyms: Participation, AMBO.

Supportive environment: An environment which is supportive of the self-actualizing individual is one whose resources and activities are found to nuture self-directed learners. (See AHRD.)

System: That concept of organizations which views the enterprise as a dynamic people resource system operating in time and space, specifically, an open system.

Refers also to more logical efforts at rational calculation, with major attention to quantitative measure of benefits, outputs, and inputs.

Theory: "A comprehensive, coherent, and internally consistent system of ideas about a set of phenomena."[26]

Work restructuring: Jobs or tasks the completion of which creates new learning problems for the worker's personal growth and competency development.

Need for the Model

With a view toward increasing the value of its human capital, some domestic organizations, such as TRW, General Foods, Westinghouse, et al., are beginning to assume a greater role in adult growth and development at the workplace. Innovative attempts in this direction include the Scanlon Plan, Quality of Worklife, job enlargement and job enrichment; however, despite these attempts many United States domestic firms seem to be falling behind other post-industrial societies in this regard. The failure on the part of American business and industry to adapt to, in fact, to effectively shape its economic, technological, and social direction is attributed to the failure of management and workers to provide a means for individual self-actualization at the workplace. It is as a response to this fallacy that the AMBO/AHRD plan is presented.

In most instances, current management methodology stems from an outgrowth of the theory of scientific management as developed in the late 20s by Frederick W. Taylor. Today, the majority of the Fortune 500 companies utilize a refinement of this theory, Management-by-Objectives to manage their divisions. However, the present form of MBO detracts from the goals of the organization in several ways; namely,

1. It fails to acknowledge and recognize the need for and the conditions under which adults most effectively learn and work,
2. There is no allowance to build-in a design for human growth and development. In fact, it may be said that, while there is an over-emphasis on training, there is a dearth on personal development. From this perspective, there is little notice given to individual learner characteristics, needs, environment, and overall organizational learning climate and the relationship of this to company goals.
3. MBO and such innovations as QWL and Labor-Management Councils (LMCs) place their emphasis on improving performance, procedures, and pro-

> cesses rather than on introducing new skills, helping individuals to learn and grow and to engage them in anticipatory planning to meet and create new futures. Such programs are limited to solving productivity problems; there is no corresponding commitment to the individual's right to grow through the task performance. They simply exist to prevent quality from becoming any worse. If anything, "LMCs and [QWL] programs actually reinforce political apathy and cynicism rather than create efficacy and identity."[27]

Hence, these programs and particularly MBO are not congruent with modern learning theory nor with an enlightened view of man, and, in fact, may run counter to long-run gain and cost reductions. Therefore, a management policy which utilizes MBO fails to obtain optimum benefit from its utilization of human capital and, as a result, needs to be modified to better enable organizations to face turbulent environmental conditions. Such a modification would place emphasis not on what the worker is <u>doing</u> but rather emphasizes the possibilities of <u>becoming</u> through what one is producing.

The first step in this process calls for a fundamental change in management's basic philosophy regarding its concept of man, power, values, and time. In addressing this issue, Bennis quotes from Trist's paradigm by stating that we are

Moving From	Toward
Cultural Values:	
Achievement	Self-actualization
Self-control	Self-expression
Independence	Interdependence
Endurance of stress	Capacity for joy
Organizational Values:	
Mechanistic forms	Organic forms
Competitive relations	Collaborative relations
Separate objectives	Linked objectives
Own resources regarded as owned absolutely	Own resources regarded also as society's resources.[28]

To ease the transition from one set of values to another, human purpose must be built into organizations; and this should be part of organizations' compact with society. To do so will help management to control the future in such a way as to legitimize transition to the post-bureaucratic period in a peaceful means. For this reason, AMBO is designed and described herein.

Philosophical Foundations

Self-actualization is an innate human characteristic according to humanistic philosophy and psychology. "Self-actualization manifests itself in a desire for self-fulfillment, for becoming what one has the potentiality to become."[29] The humanist's view of the individual's need to self-actualize, however, carries with it a strong sense of individual responsibility both to the individual and to other people, a condition to which McKenzie refers as "response-ability" in the Promethean sense.[30]

The principles drawn from this metaphysical position have affected all levels of education in the U.S. Such principles include (1) placing the responsibility for learning on the individual, (2) placing the emphasis on learning rather than on teaching, on the learner rather than on the teacher, and (3) viewing the individual as unique, and all aspects of the personality important for development. Such a position rests on the assumption that the goal of humanistic education in developing persons leads to a better society which in turn leads to the betterment of humanity as a whole.

A humanistic educator views the act of learning as a highly personal undertaking. What one learns is what one perceives to be necessary, important, or meaningful. Such an educator also believes that, since individuals differ and the self-concept varies, perception will be selective and, because of this, learning by discovery and experimentation will be the most effective means of learning.

In the humanistic learning process, motivation is seen as intrinsic; and this is particularly so for adult learners. Therefore, self-evaluation is the only meaningful test of whether learning has occurred. Within this process, the educator becomes a facilitator whose goal it is to provide the maximum number of options from which the learner will select. Hence, this relationship becomes a cooperative art wherein the curriculum is the tool and the subject is the person. McKenzie phrases this succinctly by stating, "If the medium is the message, the process is the product."[31]

As the learning process usually begins in dialogue with the facilitator, it is in participation with others that one's discovered potential unites with the shared future of humanity. Through participation, our humanness is defined as is our existence as beings-in-community. If through self-actualization we experience our potentialities, it is through participation that we sense the frailty of our humanness and are able to find meaning through engagement with others. As our nature compels us to experience this humanness, through participation the individual exercises the right to find meaning for that humanness. From this it may be inferred that, as in a democracy, each of us has the right to self-actualize, each of us will express that right through participation. Hence, participation is also a right; it is the outward expression of one's full potential. It is self-actualization of the being-in-the-world, the result of the process of learning.

That the humanistic orientation is particularly suited to adults has been clearly espoused by Malcolm S. Knowles through the formulation of andragogy which incorporates all of the basic principles mentioned above. Reflecting on his own humanistic orientation, Knowles states:

> One of the almost universal initial needs of adults is to learn how to take responsibility for their own learning through self-directed inquiry, how to learn collaboratively with the help of colleagues . . . and how to learn by analyzing one's own experience.[32]

Knowles characterizes his "democratic philosophy" of education as follows:

> . . . a concern for the development of persons, a deep conviction as to the worth of every individual, and faith that people will make the right decisions for themselves if given the necessary information and support. It gives precedence to growth of people over the accomplishment of things when these values are in conflict. It emphasizes the release of human potential over the control of human behavior.[33]

One of the reasons which account for the popularity of humanistic adult education is this compatibility with democratic values and its easy transition into the view that an education which produces better individuals will produce a better life for all. Its emphasis on the individual person also is reflected in the spirit of democracy as is the spirit of cooperation in order to make democracy work.

The humanistic view of man is in direct contrast to the mechanistic model which is an outgrowth of historical determinism. This model "defines the human being as a passive, empty resevoir, a reactive organism, which is inherently at rest."[34] This model resulted in lock-step teaching for the purpose of transmitting the culture from one generation to another. The principles inherent in this model led to the assumptions regarding "economic man" on which the theory of scientific management is based. These basic assumptions include the following:

1. Man is a rational animal interested in personal economic gain,
2. Men react as individuals within the work environment,
3. Men may be treated as "standard units" of production with little error.[35]
4. Workers are naturally prone to inefficiency and laziness and are interested only in personal gain and in need of tight control.

From this view of man, to think of the possibility of creating preferred futures "is at least a waste of time and at most, an endeavor of utter futility."[36] Unfortunately, this point of view remained firmly entrenched in management theory until recent research which led to the development of the human relations movement.

These two positions regarding human nature and learning are often referred to as Theory X and Theory Y in management literature. Knowles compares these two positions in Table 1 below.

Table 1

A Comparison of the Assumptions About Human Nature and Behavior Underlying Theory X and Theory Y Management Philosophy

Theory X Assumptions about Human Nature (McGregor)	Assumptions Implicit in Current Education (Rogers)
The average human being inherently dislikes work and will avoid it if he can.	The student cannot be trusted to pursue his own learning.
Because of this characteristically human dislike of work, most people must be coerced, controlled, threatened in the interest of organizational objectives.	Presentation equals learning.
	The aim of education is to accumulate brick upon brick of factual knowledge.
The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, wants security above all.	The truth is known.
	Creative citizens develop from passive learners.
	Evaluation is education and education is evaluation.

Theory Y Assumptions about Human Nature	Assumptions Relevant to Significant Experiential Learning
The expenditure of physical and mental effort is as natural as play or rest.	Human beings have a natural potentiality for learning.
External control and threat of punishment are not the only means for bringing about effort toward organizational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.	Significant learning takes place when the subject matter is perceived by the student as relevant to his own purposes.
	Much significant learning is acquired through doing.
Commitment to objectives is a function of the rewards associated with their achievement.	Learning is facilitated by student's responsible participation in the learning process.
The average human being learns, under proper conditions, not only to accept but to seek responsibility.	Self-initiated learning involving the whole person—feelings as well as intellect—is the most pervasive and lasting.
A high capacity for imagination, ingenuity, and creativity in solving organizational problems is widely, not narrowly distributed in the population.	Creativity in learning is best facilitated when self-criticism and self-evaluation are primary, and evaluation by others is of secondary importance.
Under the conditions of modern industrial life, the intellectual potential of the average human being is only partially utilized.	The most socially useful thing to learning in the modern world is the process of learning, a continuing openness to experience, an incorporation into oneself of the process of change.

37

McGregor states that the Y theory is the integration of individual and organizational goals.[38] Under the Y Theory, the individual is to take responsibility for their own development and the manager is to help them do so.[39] Thus, writing from a management point of view, MBO is more apt to be categorized under the Y Theory; however, in practice, Theory X is more often than not the effective operational design.

Simply on the issue of the accelerating pace of change, Knowles believes that it is no longer functional to define the purpose of education in terms of the mechanistic model, since the pace of change requires learning over the entire lifespan.[40] He also states that there is another issue having to do with the purpose of education.

> This is the issue of what priority should be placed on using adult education toward societal ends of . . . raising the level of awareness of oppressed people . . . and reconstructing society.[41]

From the above discussion, it can be concluded that each of us has the right to participate to the full extent of one's potential in the shaping of society, and

the most effective way to do this is through learning which leads to self-actualization. As Malcolm Adeseshiah put it, "If thirst for knowledge is inseperable from the claim for human dignity, then knowledge is a right."[42] Thus, the right of knowledge, as exercised through participation is inherent to the claim of human dignity and is not to be denied as individuals function in their various life roles. This issue is particularly true of the American worker, where, up to this time, participation in the right to knowledge (self-actualization) has been denied despite the veneer of democracy operative at the workplace. In fact, it is the author's belief that the most effective way to exercise this right is at the organizational level so that by shaping ourselves, we reshape the organizations and effectively society as well.

While McGregor states that "the ultimate purpose of industry is to serve the common good,"[43] one might take this line of thinking one step further and suggest that organizations exist for the primary purpose of providing a setting for the self-actualization process through which individual needs and futures are merged and mediated into social evolution. Under these conditions, self-actualization is itself the source of knowledge. From this perspective, the role of the organization would be to help the individual to become more competent in clarifying life goals and in relating these goals to the wider environment so that the individual feels that life is whole. Resources directed toward helping the individual to grow and to develop are probably more effective than programmer-planned development contents and can, undoubtedly, be expected to cut down on Counter-Productive Activities (CPAs).

Informed participation is self-affirmation. It refers to Tillich's "courage to be" in spite of the elements in the organization or society which deny its existence and which attempt to alienate man from his/her nature. At the workplace, participation is the evidence of one's self-affirmation and self-esteem. It identifies the power to act out of virtue and to join in affirming others in order to combat acquiesence in a work setting which emphasizes things over people

and a life which has been determined for the worker by management and technology. How we actualize (use our freedom) is, thus, determined by the economics of production. Therefore, the locus of control of production must rest with individuals, not with management nor be inherent in the technology utilized by management. "If the economic system deprives me of opportunities for creating a new and better self . . . , my very being-in-the-world is challenged."[44]

The bureaucratic structure under which MBO fluorishes prevents the individual from having the encounter with reality necessary to enliven the personality to the possibility of choosing response-ability, as opposed to re-actability, for shaping one's own environment. Tillich addresses how man encounters reality by stating that participation in the society can become real for individuals only through participation in those sections of it which constitute one's own life, i.e., work. The world as whole is not actual; only those sections with which one identifies through relatedness are real. "Man participates through that section of the world which makes him a person,"[45] i.e., the productive act in which the significance of the individual is present. It is only through participation in this section that man participates in the world as a whole, as through the productive act, personal meaning is mediated with the environment to affect change.

Under the mechanistic model, for the individual to participate in the productive process requires conformity and adjusting to the productive structure; and under MBO, it is this structure itself which prevents the organization from moving into the post-bureaucratic stage. Since by definition, a bureaucracy functions best under stable conditions, by reason of observation alone, the organization must conform to the demand of reason or die. If it doesn't, it certainly should, for the meaninglessness the worker experiences in such an environment can and must be overcome by education rather than be smothered with content plans which have been designed solely for solving productivity-related issues. Only in this way will education evolve and only in this way will it be possible for work

to create; and, hopefully, all this will lead to directed growth toward higher social values.

Of course, an attempt to move the organization into a position in which its primary reason for existence is for people rather than things (or profits) threatens the safety of its existence in a bureaucratic sense. And this is as it should be, for it is our concept of safety that is fallacious. Safety is not and should not be dependent upon organizations, as much as they would have us believe this to be so. Safety is dependent, instead, upon the individual. It is the person who is responsible for individual safety and that of the organization.

To perpetuate a system which precludes the expression of the above facts should make management not only nervous but downright fearful, since it must be clearly recognized that populations which are excluded from participation greatly decrease the possibility of rising to the post-bureaucratic stage peacefully. In any event, the loss of control should, at the very least, be a bargainable item in order to peacefully convert political questions into technical-managerial ones so as to produce catalytic organizations capable of revolutionizing society. To this McKenzie optimistically adds

> . . . as technology, social, economic, and political problems increase in number and magnitude and complexity, the human race may be inclined to work on the real problems it faces . . . . [These are related problems], constituent parts of the solution to the real problem confronting humanity . . . which is the development of a planetary community which is characterized by collaborativeness and the effective utilization of human and technological resources.[46]

An Overview of Supporting Learning Theory Arising from the Humanistic Position

Humanistic learning theory is concerned with the whole person rather than with behavioral components or cognitive structure. It is concerned with the worth of the individual and the processes that are important to enable self-actualization in ways that are personally meaningful.

The theory of self-actualization is credited to Abraham Maslow's hierachy of needs. In later writing, Maslow elucidates upon the relationship between self-

actualization and the work environment. (See Eupsychian Management: A Journal.) In this latter work, Eupsychian Management is seen as an attempt to "wed science with humanistic and ethical goals, with efforts to improve individual people and society as a whole."[47] Malsow believes that the industrial situation shall be the path of personal growth with creative management used to develop not only the individual but the community, the group, and the organization as well; and this is just as legitimate a path as any other. In fact, he states that "the best way to improve people en masse is through industrial organizations . . . through self-actualizing work."[48] He believes that moving to the industrial work site to improve people and the society is the most efficient way to change society. Such a relationship unites the consideration of politics and government in the worker's relationships to the organization, his personal health with and synomous to holistic problems.[49]

Below, Hersey and Blanchard portray Maslow's hierarchy of needs in step form in order to illustrate that individuals may be operating at different levels within the same environment. For instance, Individual A is at the self-actualization level, whereas Individual B is concerned with issues relating to personal safety; and this is true of organizations as well.

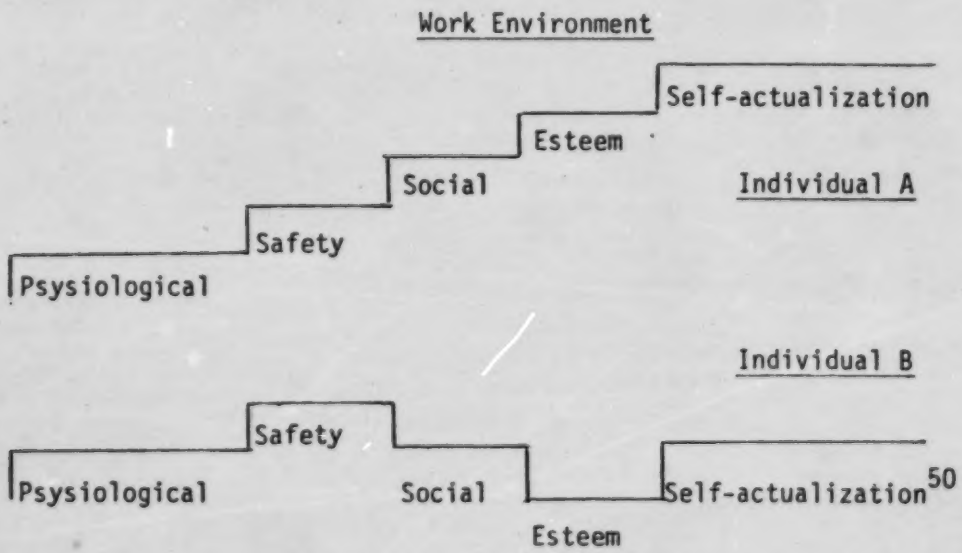


Figure 1. Hierarchy of Needs in Step Form[50]

Havighurst's developmental task theory is closely related to Maslow's hierarchy of needs. To this Carl Rogers adds that it is important for adults to move from one stage of development to another at their own pace utilizing materials that seem relevant to their daily lives and which use their own experience. Knowles' concept of andragogy unites these theories as they relate to the maturing adult. His process is premised on the following four assumptions regarding the maturing adult:

1. his self-concept moves from one of being a dependent personality toward one of being a self-directing human being,
2. he accumulates a growing reservoir of experience that become an increasing resource for learning,
3. his readiness to learn becomes increasingly oriented to the developmental tasks of his social roles; and
4. his time perspective changes from one of postponed application of knowledge to immediacy of application.[51]

Jerome Bruner supports the self-directing process in his position on discovery learning, which, he claims, has the following advantages:

1. The learner will be able to increase his problem-solving abilities in discovering for himself how to acquire information
2. Through the act of discovering, the learner will become internally motivated through his own competence
3. Having experienced discovery, the learner will be better able to use this approach in the future; and
4. Discovery learning increases retention of material learned and aids retrieval from memory.[52]

To this, Rogers' thoughts, as they apply to education within business and industry, are also relevant.

> Clearly it is essential for adult students to be allowed to work at their own pace . . . . Changing to a system where there is no set length for training, where assessment and not examination is employed, and where trainees come in at different times and not in batches together usually produces a consistently better success rate . . . . It is better for an adult to measure his progress against his own previous performance rather than to attempt frantic rivalry with his neighbors.[53]

> Adult students like to feel that what they are learning is going to be useful and relevant in their daily lives. They also learn more rapidly the closer the resemblance between the learning task and the skill they finally hope to attain.[54]

To summarize a further portion from Rogers, he contends that the problems exposed and the methods used should be clearly recognizable as relevant to the adult's daily life. Furthermore, this calls for a totally uncompetitive and protective

learning environment.

Allan Tough analyzes the learning episode itself which he describes as a well-defined period of time during which more than half of the adult's motivation is directed at learning some new knowledge and skill and retaining that information or competency for a specific period of time. During this episode, the intent to learn must be dominant and the goals must be fairly clear to the learner. He refers to a series of related learning episodes as a learning project extending over a period no shorter than six months. In a 1970 national survey, he discovered that in one year's time, the average factory worker will have expended 800 hours in this manner.[55] In a later paper, Tough disclosed that self-planned study accounts for 73% of all adult learning in the U.S.! This documents that not only can adults learn but that a large portion of their time is spent in this endeavor--including that of workers'[56]

Bell and Margolis, writing for the Training and Development Journal add

> Regardless of the means for transmitting learning activities, we believe that they should be aimed at sharpening the individual's skills of inquiry and supportive of the individual's self-esteem--facilitating learner self-directedness. Learning is more likely to take place when the learner is actively involved in the learning process.[57]

Writing from the perspective of education within industry, Bass and Vaughan state:

> To facilitate the learning of ideas, the instructor must encourage active participation in the learning process and permit the trainee to explore a situation and eventually discover for himself its operating principles and relationships.[58]

> Learning to learn gives one a new lease on life as it permits him to face new learning situations with a feeling of adequacy and confidence in his ability to handle the situation.[59]

> The level of aspiration is sensitive to past successes and failures. Success tends to bolster self-esteem and raise the level of aspiration, while failure has the opposite effect.[60]

In stating needs and objectives, Bass and Vaughan add that persons tend to identify them and ancilliary activities only if the individual perceives achievement in these areas. In these situations, however, the individual will have ego-involvement and will take personal pride in achieving these goals. It may also be stated that, if the individual has experienced failure in the past, the facilitator needs to arrange for the attainment of subgoals so that the individual experiences success and thereby

reinforce progress toward the real goal. Thus, the idea is to have the individual manage their own self-development program over the short-term; and this, in turn, forms a long-term learning process which continues past retirement over the entire lifespan. Akin to the Japanese approach, where learning readiness is considered vital (although under patriarchal conditions), it is necessary that healthy attitudes about learning be developed at the workplace so that employees are "ready, willing, and able to learn new processes, new methods, and new ideas as they appear in their own jobs to which they are transferred or promoted."[61]

The similarity between the above concepts is that the individual's independence and needs are to be considered, especially in the work environment if it is to be supportive of the self-actualizing adult and if we intend to find a way that the individual and the society can best reach their goals through the organization. Then, with adult education as a means, we can, at least, begin to distinguish between the appearance of progress and the reality of progress.

The Knowledge Organization

A new economic order has emerged that is based upon information and knowledge rather than on material goods. Modern technologies and innovations are bringing with them new policy questions and choices for society which need to be confronted in an informed participative manner. Such choices deal with the use of resources, time, technology, economic progress, and individual rights. The major guaranteeor of our right to shape how society responds to these questions is through the use of the right to knowledge, and this guarantee will be most effectively expressed through worker contributions in their organizations.

Unfortunately, most development programs do not focus on the individual's right to grow, to learn, and to change--nor to distribute the benefits of technology, for that matter, evenly throughout the society. Present programs tend to be programmer-controlled and designed and are problem-centered; and this limits the capacity of the individual to respond to changing conditions, difficulties, and problems which arise

from unstable conditions. Such programs are external to the individual's nature and do not recognize the need to create and to control the evolution of a new social order in which common aspirations may be properly expressed. For example, a critical question is how are workers to get control over themselves and their tools (technology) so long as management control is buried in the technology and workers continue to be willing to exchange "eco-technological" improvements for economic security in the short-run. Another related question is how are workers to be prevented from becoming obsolete or redundant as the technology employed at their work-station becomes obsolete?

Only when such situations are seen as organization-wide and society-wide responsibilities can we hope to move from our current predicament. Only when the bureaucratic organization stops placing the blame for management inadequacies on "economic conditions" and ceases externalizing its costs to the public sector can we hope to achieve the new synergy between man and machine that is necessary to the changing nature of self-actualizing work. In this way, we would be creating a "knowledge organization" where performance of tasks of changing natures produce, in combination with other's knowledge, new progress and new social results. In this way, the knowledge organization can serve as an intersecting trajectory of education and the workplace as a laboratory experience for the development of higher social aims. Beyond that, it will be a source of knowledge itself where spillover effects improve the lives of human beings and the world in which we live. Thus, we are asking the organization to assume responsibility beyond products and services, and are, moreover, saying that this is the prime responsibility of the knowledge organization in the post-bureaucratic society.

Rights and Obligations. "Knowledge and information industries will constitute 66% of the work force by the year 2000 with 22% in manufacturing and 2% in agriculture."[62] This fact alone will account for the steady centralization of power implicit in the control of knowledge but will, at the same time, keep pushing society toward decentralization. A free democracy depends on maintaining an appropriate

balance between centralization and decentralization. As Francis Bacon put it, "Knowledge and human power are synomous, since the ignorance of the cause frustrates the effect."[63] Therefore, the idea is to maximize power-influence based upon expertise. Expertise is both a resource and a power base; and if the organization is to respond to changing external conditions, the foci of power must also change. Quoting Toffler, "Knowledge is power, but it is also change, and accelerating knowledge thereby accelerates change."[64] Athough written in 1956, Lindeman's writing is significant in that he notes that

> Nothing positive results from mere shifts of power; this is the lesson which labor movements need to learn. If half the time devoted to revolutionary propaganda could be directed toward refining the aspirations of workers, a real transformation would sooner or later take place. Premature workers' control may, indeed, do nothing more than accentuate old evils: the desire to do unto others what they have been accustomed to do unto us is an invariable by-product of sudden power exchanges. If workers bring into industrial control nothing better in the way of a philosophy of power than the present concept of capitalism and employers, the net gain will be zero. We stand in need of a revolution of the mind--not a mere exchange of power groups--before an economic revolution can transform industry into a cooperative enterprise, before 'power-over' is transposed into 'power-with' in industry . . . . The trade union of the future will be a creating, not merely a fighting organization.[65]
>
> [There is a] need to displace force (coercion) and attempts to subvert power through intelligence. We desire, if we are normal human beings, power over our environments, over the mechanized forces which surround us, over the factors which control our labors: power, that is, over the external objects and energies with respect to which our significant conduct is conditioned.[66]
>
> As we gain power over our environment and over the ever-increasing sources of power, that power as vested in the people will validate their existence and their assumptions that men shape and control their own lives and events. To do this we need to develop intelligent procedures for socializing power. To do this, we need to let <u>each</u>* individual exercise power over himself.[67]
>
> Only the intelligent can have justifiable power; only those conscious of power, inner resources, can achieve adequate self-expression; and, in the end, only the free can create . . . . Intelligence for power, power for self-expression, and the self expressing its objectives in a context of relative freedom: this is the sequence which leads to creative living.[68]

---

*Emphasis mine.

Hence it is that the function of freedom is to create change--not merely to cope with it. Trade unionism today, however, does not translate itself into the new practices within the business environment. It remains a fighting force for its dwindling membership, not a creative nor an educative one; and its perceived role as one to compensate its (employed) members for specialized labor, is not a solution to the working class's inherent problems.

This brings us to the need to seek an alternate means for individuals to experience the sense of power they seek--one that operates along side of the union in unionized shops. Such a concept relates to the idea, therefore, of dispersed power in a democratic organization; and if we are to make the most of an alternate path, we need to grant the right of each personality to rise to its own level. This is how adult education's aims fit into the workplace; and this is how democracy and the general welfare are to be achieved through the knowledge organization. At present, workers have "voluntarily" surrendered their personal responsibility to the corporate system; therefore, they no longer have a defense against decision-making based on the eradication of social advancement in the name of profit. Adult education in the industrial microcosm will help play out the ideals of organizational, economic, and individual democracy even though they are at different levels of development. In addition, adult education may help take the fear out of responseability and point to the relationship between rights and obligations; and it is in the interest of the organization to arrange for this to occur, to help people to inquire into problems and to assist them to engage in even larger undertakings than those simply related to their immediate task.

The Individual in the Knowledge Organization. In the Knowledge Organization, while there will be a greater need to cooperate in order to complete complex tasks, there will be an overall reduction in group cohesiveness and more emphasis on the individual and personal development.[69] Workers will be categorized and differentiated by their skills and their professional training, by their flexibility and their

functionality. Loyalty will be to one's profession rather than to the organization. The individual will be committed to the task, not to the job; to internalized standards, not to the boss's superimposed goal-setting process. One will be career-committed and guided by internalized standards for competency and self-fulfillment. Each individual will, therefore, have a custom-cut knowledge trajectory which is seen in terms of a life plan; and each worker would characterize themselves in terms of this long-term trajectory, not in terms of the job presently held since in this type of kinetic organization, the individual's position will be constantly changing, fluid, and varied. Adequacies would thus be based on the individual's perceptions of his/her competencies and the fulfilling of his/her roles rather than from those higher in the pyramid or in the group.

The basis for choice as a leader or follower is individual competence at tasks. "When group members believe that a given member has competence, he is esteemed by them and, other things being equal, acquires status within the group."[70] To the extent that the individual fulfills his/her self-expectations, s/he would be also fulfilling the organization's goals, i.e., what is good for turning out good automobiles in the long run and for having a good functioning factory capable of surviving in the long run would also be that which is good for personal growth and development of workers. Thus, the individual who attains mutually valued objectives would acquire the greatest influence within the organization.

These visions arise from the perceptions that (1) the organization's goals meet the worker's short- and long-range life goals, they will change over time, and that the goals of the organization will not remain static, (2) that the organization has the ability and the recognized need to help the individual achieve his/her personal goals, and (3) that rewards are based on the progressing fit between the individual's pursuit of selfish aims and the goals of the corporation, i.e., on knowledge, experience, skills developed through self-directed personal growth initiatives designed to master life roles. Thus, rewards are custom-tailored for each individual.

Assessment would also be based on assessing in combination with personal development in terms of job, social, performance competencies, problem-solving, communications, understanding the business environment, creating new techniques, social contributions, etc. Therefore, a new type of assessment device would be needed by which the individual could personally identify particular strengths and weaknesses so that more effective educational programs could be tailor-made to meet their needs as whole persons in combination with the assessment design. Hence, instead of fitting oneself to the structure, the individual would be personalizing the structure to fit one's own needs as whole persons; better yet, there would be, thus, a general decrease in all types of structures.

The best organizations would be those who promised and delivered the most developmental and growth possibilities and produced the best fit between individuals and the internal and external goals. Such organizations would create an atmosphere that is conducive and supportive to learning--one characterized by mutual respect, trust, warmth, safety, and openness. Such organizational support would be intended to empower people and to legitimize the new patterns of control they seek for their lives. Hence, the best and most trained personnel will gravitate to these organizations and those which most closely approximate their own socio-political values.

In conclusion, counter-productive activity (CPA) might have to be redefined to encompass the worker who chose not to grow and to develop; and organizational retaliation might be seen in terms of denying growth-producing experiences to individual workers. This would present a new item for negotiation. Currently, this issue is being addressed by AFSCME in the following sample contract language:

> If any technological change permanently effects any person in the performance of his/her job, the employer shall agree to provide training, at the employer's expense, to the person, for a job resulting from such technological change or for another equivalent job which the employer has available within the union's jurisdiction, or for any other equivalent job opportunity with the employer. Such training will include, but is not limited to, instruction and practice in the safe and effective operation of equipment.
>
> Any person offered this training shall have the right to reject it, but such rejection shall discharge the employer's obligations under this section unless the job opportunity for which employer offered training

was at a lower rate of pay than the job previously held by the employee.

In lieu of training for newly created jobs or for other jobs with the employer, an employee may complete a course of study in another skill or occupation (whether or not such skill or occupation would qualify for a job with the employer), and will be reimbursed in the amount of the tuition, not to exceed $_____.[71]

Finally, it should be concluded that education within this setting is not a palliative, a filter of social unrest, a detractor form the real issue of social change. It cannot be a bribe for "good" performance nor quiet acquiescence, but rather it must be a means for revitalizing organizations and using them to change the future.

Self-Actualizing Work in the Knowledge Organization. Work that is self-actualizing (S-A) is a responsibility as a response brought forth by the situation or the projected situation. Its goal is to produce enjoyment from the content and growth satisfaction from experiencing its performance. In order to experience S-A, work will need to be restructured to develop work-oriented people who are meeting their personal goals through task performance. Hence, in the knowledge organization, work will provide meaning as well as cash, so to speak. It will no longer be violent to the spirit and to the body; it won't endanger people's lives nor their mental health and self-integrity. Instead, the performance of the task itself will contribute toward a total environment which celebrates the human being.

The motives and needs within the individual will be directed toward controlling this environment--both physically and socially. Through ability and skills, the individual will be able to manipulate the environment to make things happen and to gain significant personal rewards. The following illustration attempts to convey that growth in the person will, thus, be directly related to growth in the organization and society.

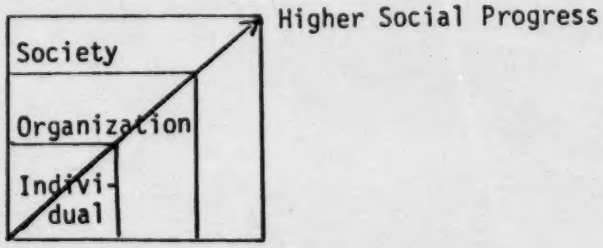


Figure 2. Growth Relationships

Hence, the organization's support system would aim at providing a work climate in which everyone within it would have an equal opportunity to grow, mature, and participate.

As man is self-directing, people will tend to create their own jobs and to define their own tasks; thus, performance will pertain directly to the individual in contrast with another person who is performing a similar job. Evaluation will, therefore, deal with two general questions: (1) What constitutes the validity of the individual's goals, and (2) Is the behavior effective with respect to the attainment of these goals.[72]

In this manner, human beings will view themselves as projects-to-be-completed and humanity itself as a project-to-be-completed so that the utopian ideal might be achievable. As alternate futures become visable through S-A work for the individual, so will alternative futures also become apparent for the organization and the society. Such a vision provides the source of meaning for the activities of adult education within the knowledge organization. Its goal is to proliferate an environment which fuses learning with working with ultimate meanings. Hence, the nature of work and the manner in which it is done will define the democratic values of the organization to its processes and social evolution to its public.

Singer observes already that

> There is a perceptible shift of the pendulum away from rigid training courses toward more self-directed learning. The learner or job holder is recognized to have an understanding of what he needs to learn . . . . It is probable that by the end of the century, a significant amount of industrial learning will be structured to meet the needs of individuals rather than to meet the needs of groups of people . . . . Such a development would be in line with social changes which place emphasis on the importance of individuals in society.[73]

In such an environment, Harrison observes that learning will be radically destructured; it will be time-free and space-free (TF/SF) and combined with educational technology in order to fit internal and external processes so that they are mutually reinforcing forces.[74] He observes that

> . . . self-directed learning channels more energy into work and less into emotionality. Individuals do not have to fight to get their needs met.[75]

Nadler also refers to the advent of newer training technologies in documenting Eastman-Kodak's workbench training program which had been implemented to "reinforce existing tasks or to 'train' for modification and other minimal changes."[76] Lindeman, however, notes that "schemes to increase specialization actually leave the individual with diminished function."[77] From a management perspective, Hersey notes that

> It is being found over and over again that broadening individual responsibility is beneficial to both the workers and the company. Giving people the opportunity to grow and mature on the job helps them satisfy more than just psysiological and safety needs, which, in turn, motivates them and allows them to use more of their potential in accomplishing organizational goals.[78]

To move in the direction of self-actualization on the job, Seashore suggests that, as a beginning, one should look at those companies who pay for competence rather than simply job assignment and also at the reward system within these companies which may be either promotional and/or financial or extrinsic.

> For an example of yearly evaluations which include the matter of competency/growth, look at the Federal government agencies. Their annual performance appraisal asks, 'What has this employee done in the past year in terms of special training or learning.' And this is a component of their annual increase. Note is, therefore, made of growth in their annual review.[79]

Addressing this same issue in relation to the Japanese auto industry, Cole adds that

> Japanese production workers are given more money in proportion to the number of different jobs they can perform. We need to adapt this to our existing reward system where we are paying people to upgrade their skill levels.[80]

In conclusion, it may be clearly said that in the Knowledge Organization task performance will become more internally controlled and learning more decentralized. Within this organization, the goal will be to provide a work climate in which everyone has a chance to grow and to mature as an individual through the completion of tasks, i.e., the achievement of satisfaction of individual needs through a S-A work environment where rewards are tailored to the individual and assessment is tied directly to further learning.

Need to Restructure Work. Gellerman, in a film summary of the literature of Chris Argyris, states that

> The problem of worker apathy and lack of effort are not, according to Argyris, simply a matter of individual laziness. Rather they are often healthy reactions . . . to an unhealthy environment--created by common management policies . . . . Argyris states that most adults are motivated to be responsible, self-reliant and independent . . . . But the typical organization confines most of its employees to roles that provide little opportunity for responsibility, self-reliance, or independence . . . . Too many jobs are designed in ways that make minimal demand on the individual's abilities and that places the responsibility for major decisions not in his hands but in his supervisor's . . . .
>
> Argyris says that . . . withdrawing one's interest from the job--treating it with indifference or even with . . . contempt--is a necessary defensive maneuver that helps the individual to preserve his self-respect . . . . [Therefore,] the real frustration of most employees is not so much a matter of income as of utilizing their abilities in a significant way. They need, in other words, a sense of pride and accomplishing from their work; but instead of this, they find their work neither stimulating nor dignifying.[81]

Gellerman also points to Frederick Herzberg's experiments with job enrichment, which Herzberg defines as the deliberate enlargement of responsibility.[82] Again, however, it should be noted that, while job enlargement increases responsibility, there is not an automatic correlation between increasing one's job responsibilities and the provision for self-directing growth experiences. In fact, increasing one's responsibilities in the work situation without concommitant allowance for growth may actually be a demotivating factor to performance.

That job restructuring to provide S-A work not only can be done but also be done in a mutually beneficial manner has been demonstrated in The Topeka Story which describes the successes experienced by General Foods in this regard. While several significant findings were noted in this report relevant to this topic, it will be sufficient here to state that Walton reported on a situation wherein the technology and supportive environment led to a strong sense of human dignity, commitment to the job, and individual self-esteem.[83] The system had idealized influence based upon expertise and simultaneously enhanced the human experience at work and the effectivness of work. Walton concluded that the very nature of the tasks may be reconceived to accommodate a preferred social organization--rather than fit an organization to

standard patterns.[84] He also observed that

> It is not inherent in mass production technology that work procedures must be minutely described and then strictly adhered to.[85]

In reference to The Topeka Story, the Harvard DBA dissertation of Dr. I. Michael Brimm, as cited by Walton, refers to the concept of "economic determinism" in which Brimm discusses the equal importance of thought ownership to ownership of the means of production. Brimm states

> . . . the ownership of the means of thought production allows the individual to conceptualize his own reality in his own interest . . . . In its articulation, [this] is an obituary for the existing order. In its critique of the American business community, . . . [it] is a call to action.[86]

PART II

A Closer Look at Management-By-Objectives

MBO is a management activity which attempts to focus human energy toward some pre-specified outcomes. More specifically, Hersey defines MBO as

> As process whereby the superior and the subordinate[s] . . . of an enterprise jointly, identify its common goals, define each individual's major areas of responsibility in terms of the results expected of him, and use these measures as guides for operating the unity and assessing the contribution of each of its members.[1]

Odiorne (1965) agrees with the process approach in which superior and subordinate jointly identify common goals and the individual's relationship to the organization in achieving these goals. He also states that the subsequent appraisal process should measure performance results against the attainment of these organizational goals. From a systems approach, Odiorne later defines MBO as

> . . . a system which begins by defining outputs and applies these output statements as criteria to judge the quality of activity (behavior) and to govern the release and effectiveness of the inputs.[3]

Looking more closely at the MBO process, the following major elements may be identified:

1. The manager assumes the responsibility for identifying the common goals which all of his/her subordinates must share and toward the completion of which all efforts must converge.

2. Each individual is encouraged to state in his/her own words what portion of those common goals s/he will complete or identify as an area of responsibility and to set forth a means to determine whether these performances have been achieved, and

3. Finally, each person having in mind the goals s/he is to achieve and having worked out a plan for achieving them, his/her results will serve as a means upon which appraisal is based which in turn forms the basis for promotions, salary increases and other forms of organizational rewards.

The entire MBO process, as depicted by Odiorne, is presented below.

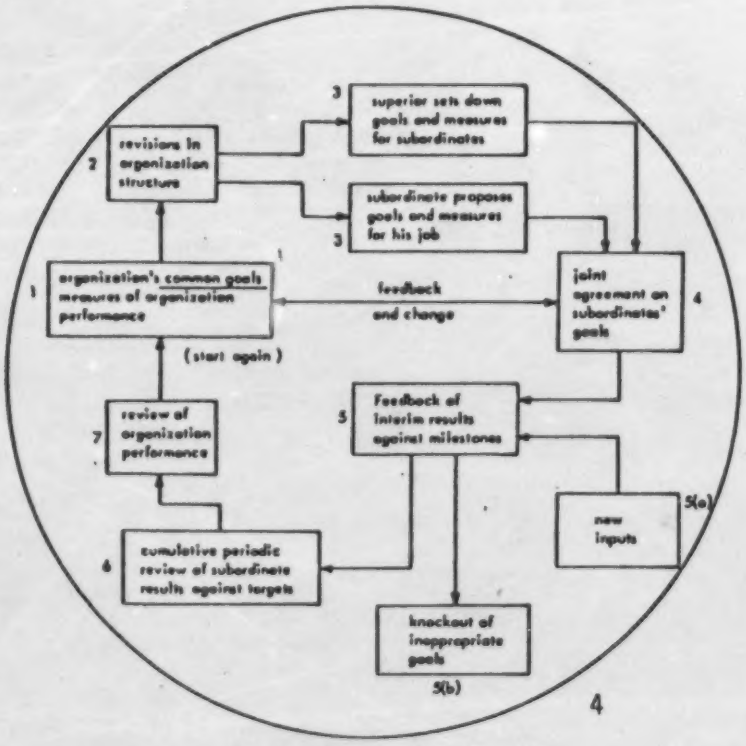


Figure 3. The Management-by-Objectives Process

The singular identifying feature of MBO is that personal performance standards for achieving organizational goals are jointly established and agreed-upon in advance and form the basis for the appraisal process. We, thus, see a "rediscovery"

a measuring results against organizational standards; the only major shift is that MBO stresses the ability and achievements of individuals rather than their personality.

Participatory management enters this scheme in two forms; namely, (1) allowance for individual latitude to choose the method for accomplishing the organization's goals, and (2) to identify problems encountered in the accomplishment of these goals. Creative goal-setting is allowed somewhat but only within the boundaries of organizally defined goals and the job task. Hence, there is a semblance of participation in order to avoid or to channel disruptive influences in the bureaucratic structure; but there is no real redistribution of power. However, even from this narrow view, Odiorne contends that this process does allow for individual developmental growth which (he acknowledges) is so necessary for the survival of the economic and social and political system.[5]

Underlying Issues. The key to understanding MBO is to realize that this process relates individual performance to organizational goals. The fallacy thus becomes readily apparent, i.e., there is a total disregard to relating internal individual goals to organizational goals. While the MBO process provides opportunities for persons to set their own objectives in relation to achieving the organization's goals, it must be noted that these goals are largely external to them and largely superimposed upon them by the MBO process itself. Furthermore, there is neither allowance for nor recognition of the fact that the achievement of these goals may be totally unrelated or alien to the person's own values and goals for attaining self-actualization. In fact, under this system, any exhibition of concessional behavior is incidental and may be attributed solely to the fact that the individual perceives some lasting and significant personal gain by modifying his/her behavior patterns to conform with this process. It may, thus, be concluded that the worker will put out the effort to meet felt needs only in so far as s/he expects to satisfy them through this organizational process. When no other option than conformity exists, the individual is apt to feel exploited, the effect of which may be counted

in terms of sabotage, absenteeism, theft, and other forms of social disobedience. This situation is, thus, demotivating; and under such conditions, quality often loses out to quantification.

In criticizing the MBO system, Levinson asks the question, "Management by Whose Objectives?" He concludes the following:

> The whole method is based on short-term, egocentrically oriented perspective and an underlying reward-punishment psychology. The typical MBO process puts the reporting manager in much the same position as a rat in a maze, who has choices between only two alternatives. The experimenter who puts the rat in the maze assumes that the rat wants the food reward; if he cannot presume that, he starves the rat to make sure he wants the food.
>
> Management by objectives differs only in that it permits the man to determine his own bait from a limited range of choices. Having done so, the MBO process assumes that he will (a) work hard to get it, (b) be pushed internally by reason of his commitment, and (c) make himself responsible to his organization for doing so.[6]

To correct this situation, Levinson suggests that MBO start with the individual's objectives. He also contends that the organization has a mutual task, i.e., to mesh the person's needs with the organization's requirements.[7] This writer would take this one step further and suggest that people's needs be the basis on which the organization is built, i.e., under this circumstance, the organization's needs would conform to the needs of people.

In commenting on MBO, Ingalls also finds it

> Truly astonishing to find that a great number of proponents of MBO systems and approaches think it is possible to start with objectives and completely ignore climate issues, mutual planning, or the assessment of needs, interests, and values. As a result many people in the organization can be observed to have resigned in place . . . .[8]

Hence, it is clear that the major fallacy of the MBO process lies in the equation of the purposes or goals of the organization with the purposes and goals of its individual members--and society in general.

Rationale for Modification of the MBO Process

The MBO process provides for mutual consultation to identify the person's relationship to the organization's goals and to measure the person's movement by results (measureable) against these organizational goals (standards). Thus, as a

system of management, MBO is built upon manipulating the individual rather than upon actualizing him/her. It is a structure which does things to or for people which they might have otherwise accomplished for themselves. In fact, MBO actually over-manages in that it defines the employee's job too narrowly and makes too many decisions for him/her. Like the bureaucratic military structure, this organizational structure may be said to be a "system created by geniuses to be carried out by fools." It is a system predicated on the belief that employees are too dumb to make decisions for themselves.

A closely related concept, moreover, is that if employees have abrogated their right to decide, management is most willing to assume this responsibility for them. McKenzie addresses this issue by stating that flight from responsibility is an effort to avoid guilt. He also contends that

> . . . if we have no responsibility for our future, it follows that we do not have any freedom. Therefore, we must raise our consciousness of freedom . . . to see ourselves as self-makers [able to] affect changes in the very self which effects changes in the external world . . . .[9]

Thus, MBO weakens the very capacity and worth of worker-citizens to act on their own behalf and to create change rather than to adapt or to cope with it. The breakdown of tasks increasing specialization also further diminishes and fractionalizes the personality leaving but a polyvalent adaptable, one who is specialized in a few areas but incapable in all. Like the LMCs and QWL programs, MBO is essentially a "participation put-on" that is both a block to learning and to industrial democracy. But, from a conservative management point of view, MBO continues to represent the last-ditch effort to conserve stability in the face of pressure from the larger environment. Unfortunately, management innovation within this structure is limited to discovering alternate forms for achieving organizational goals to design new structures. While this system is busy "restructuring" to accommodate the past, it is neglecting the processes which are occurring in the present and in the future. Commenting upon this Toffler notes that

> Accelerative change undermines the concept of permanence which is one of the identifying characteristics of a bureaucracy, thus what is involved

> here is a virtual revolution in organizational structure and human relationships. Responsibility will shift from up to down and also to sideways.[10]

He suggests that what is needed is the opportunity for the corporation to analyze its goals and the individual's goals in terms of anticipating futures. This will provide the relationship between technology and values, which he says is vital if we are to survive freedom.[11]

Maslow summarizes this section well in the following:

> The more grown people are, the worse authoritarian management will work, the less will people function in the authoritarian situation, and the more they will hate it . . . . What this means is that people who have experienced freedom can never again be content with slavery, even though they made no protest about slavery before they had the experience of freedom.
>
> This means in general that the better the society grows, the better the politics, the better the education, etc., the less suitable will the people be for Theory X management . . . and the more they will need [self-actualizing work].[12]

In conclusion, from the company's point of view, MBO is a good system because results are easily recognizable in terms of profits. However, this is all in contrast to its social contribution in the form of socially acceptable non-alienating values and products. Hence, MBO cannot appraise and identify the person's potential or needs to grow in certain ways as they are perceived by the person. Finally, MBO is a "down-and-dirty" way to appraise; and this is often simply done with a check-off sheet. Competency is based solely on the performance of the company-defined goals, i.e., "getting the job done". Ascendancy in the pyramid is the result of how well each individual competes against all others to perform these externally set objectives.

PART III

Andragogy: The Art and Science of Helping Maturing Adults Learn

Andragogy's essential message is that life itself is a learning process for which individuals themselves are wholly responsible. From this concept, the learner is defined as

> a self-directing organism [who] is put in the role of diagnosing his/her own needs for learning, translating these needs into learning objectives, identifying and using appropriate resources for accomplishing these objectives, and evaluating the extent to which they have been accomplished, with assistance from a facilitator as needed.[1]
>
> Andragogy is an invitation to fully utilize all the learning tools at one's command regardless of whether the [learning] operation is within the schooling system or outside it. But first the question of who's in control [of learning] has to be settled.[2]

Hence, the key in the andragogical process is the decision to either take charge of one's own learning (destiny) or to give it away to someone else. But how can one delegate what is necessary to maintain one's own identity/dignity? With andragogy, the decision to learn is placed squarely in the lap of the learner thus preserving the person's sense of responsibility (identity) to him/herself. The assumptions upon which andragogy rests are the adult's self-concept, time perspective, and readiness to learn. Proponents of the andragogical model thus contend that this model results in the most effective learning by most adults in most learning situations.

Within the andragogical framework, the learners generate their own objectives--not those of their teachers, mentors, or supervisors; and in this way, the adult demonstrates full charge over his/her own learning. Before entering into this framework, however, the learner must have experienced a sense of trust, respect, and personal identity and adequacy.

Finally, andragogy is the fusing of process and content and structure. As a process, andragogy recognizes that people grow in accordance with their own perceived best interests; doing the task is part content but not delivered content;

structure is present vs. non-structure, but control is missing in the traditional sense.

Andragogical Theory

Malcolm Knowles, the leading developer of andragogy, bases his theory on four main assumptions about the adult learner.

> According to Knowles, as the individual matures, his or her self-concept moves from one of total dependence to one of increasing self-directedness; s/he accumulates a growing reservoir of experiences which becomes an increasing learning resource and provides a broadening base from which to relate new learning; the readiness to learn is increasingly oriented to the developmental tasks of his or her evolving social roles, and there is a shift in learning from subject-centeredness to problem-centeredness.
>
> Knowles also reveals the following about the adult learning process. (1) Adults tend to underestimate their learning ability by over-emphasizing their early school experience and underemphasizing their recent informal learning experience. (2) Effective learning entails an active search for meaning in which new learning can build on competencies. (3) While learning achievement is modified by the character of the individual, almost any adult is able to learn almost any subject given sufficient time and attention. (4) Developmental changes in thinking that occur during adulthood are reflected in problem-solving, critical thinking, and creativity.[3]

Table II below illustrates the assumptions and processes of andragogy.

Table II

Assumptions and Processes of Andragogy

Assumptions		Process Elements	
Self-concept	Increasing self-directedness	Climate	Mutuality Respectful Collaborative Informal
Experience	Learners are a rich resource for learning	Planning	Mechanism for Mutual Planning
Readiness	Developmental tasks of social roles	Diagnosis of needs	Mutual self-diagnosis
Time Perspective	Immediacy of application	Formulation of objectives	Mutual Negotiation
Orientation to learning	Problem-centered	Design	Sequenced in terms of readiness Problem units
		Activities	Experiential techniques (inquiry)

TABLE II (continued)

Assumptions	Process Elements
Evaluation	Mutual rediagnosis of needs
	Mutual Measurement of program[4]

Some Assumptions about Learners and Facilitators. Since the "primary" purpose for which people take part in organizations [is] to meet their [own] needs and goals,"[5] the primary and immediate purpose of every andragog is to help individuals satisfy these needs and to achieve their goals, i.e., to help each individual learn what is necessary to gratify those needs at the level at which s/he is struggling; and this is usually done within an institutional setting. Maslow's hierarchy of needs, Havighurst's developmental needs, and Overstreet's dimensions of maturation all illustrate these directions of growth. Within this perspective, the role of the adult educator is to facilitate the individual's exploration of underdeveloped capacities and become his/her full self.

At the firing line level are the teachers, group leaders, and supervisors who work face-to-face with adult learners. Among their principle functions are the following: (1) the diagnostic function, (2) the planning function, (3) the motivational function, (4) the methodological function, (5) the resource function, and (6) the evaluative function.[6] The sum responsibility of these individuals, in the andragogical process, is to help individuals to develop the attitude that learning is a lifelong process and to acquire the skills of self-directed learning.

Self-directed learning is essential from the individual's perspective from two viewpoints. First, an essential aspect of maturing is developing the ability to assume increasing responsibility for one's own life. As assuming this responsibility is a condition of freedom, it is indeed the right of the individual to become increasingly self-directed. Next, in a world where knowledge becomes increasingly obsolete, the main purpose of education must now be to develop the skills of inquiry

so that the individual can go on acquiring new knowledge easily and skillfully throughout the lifespan.

Self-directed learning may be contrasted with other-directed learning on the following bases:

Self-directed	Other-directed
Personality grows in capacity and need to be self-directing as an essential component to maturing	Learner is essentially a dependent personality
Learner's experience is valuable	Only materials prepared by the programmers are of value
Individuals are ready to learn different things at different times corresponding to their different levels of maturation	Any given set of learners will be ready to learn the same things at the same time
Natural orientation is task- or problem centered	Learning is seen as the accumulation of subject matter
Learners are motivated by internal incentives	Individuals will be motivated to learn by external rewards

Another way to phrase this situation is to think in terms of personally directed programs (PDP) and programmer planned programs (PPP).

Since self-directed learning implies a helping relationship, Knowles has set forth certain criteria for effective learning and teaching.

Table III

Conditions of Learning and Principles of Teaching

Conditions of Learning	Principles of Teaching
The learner feels a need to learn	The teacher exposes the learner to new possibilities for self-fulfillment
	The teacher helps the learner clarify his/her own aspirations for improved behavior
	The teacher helps each learner diagnose the gap between present level of aspiration and actual performance
The learning environment is characterized by physical comfort, mutual trust and respect, mutual helpfulness, freedom of expression, and acceptance of differences	The teacher provides physical conditions that are comfortable and conducive to interaction

Table III (continued)

Conditions of Learning	Principles of Teaching
	The teacher accepts each person as an individual of worth and is respectful of his/her feelings and ideas
	The teacher seeks to build relationships of mutual trust and helpfulness and refrains from inducing competitiveness and judgementalness
	The teacher exposes his own feelings and contributes his/her resources as a co-learner in the spirit of mutual inquiry
The learner perceives the goals of a learning experience to be his/her goals	The teacher involves the student in a mutual process of formulating learning objectives in which the needs of the students, the institution, the teacher, the subject matter, and the society are taken into account
The learner accepts a share of the responsibility for planning and operating a learning experience, and, therefore, has a feeling of commitment toward it	The teacher shares his/her thinking about options available in the designing of learning experiences and the selection of materials and methods and involves the student in deciding among these matters jointly
The learner participates actively in the learning process	The teacher helps the student to organize the inquiry process so as to share in the responsibility of mutual inquiry
The learning process is related to and makes use of the experience of the learners	The teacher helps the student exploit personal past experiences through case studies, role playing, discussion, etc.
	The teacher gears the presentation of his own resources to the levels of experience of the particular person
	The teacher helps the student to apply new learnings to make their experience and the learning more meaningful and integrated
The learner has a sense of progress toward his/her own goals	The teacher involves the student in developing mutually acceptable criteria toward the learning objectives
	The teacher helps the student to develop and apply procedures for self-evaluation according to these criteria[7]

To effectuate this process most easily, Knowles reports that the learning contract helps students

identify their learning more efficiently, induces them to be more creative

in identifying learning resources and developing learning strategies, and forces them to get better evidence of their accomplishments.[8]

Implications of the Need to be Self-directing from a Managerial View

Most adults, when being talked down to, being told what to do, or being disrespected, will find the situation to be in conflict with their self-concept. Therefore, one implication that is crucial to the work climate is that the workers feel respected. This is a sure indication that the climate is conducive to human growth. Another implication has to do with how training needs are determined. Usually, it is the manager or supervisor who determines what the workers need to learn. The self-directing person, however, will be motivated to learn something only if s/he diagnoses that learning need him/herself. Therefore, it is important for the supervisor to help personnel to arrive at their own list of ways to improve. Once these goals are identified, it is also important for the worker to take an active part in planning and carrying out these learning experiences. Finally, it is important for the adult to be involved in whatever evaluation process is undertaken by going through a process of collecting data about what has been learned and exploring the possibilities for further developmental processes. Instead of an appraisal interview, therefore, Knowles suggests that this be referred to as a "personal development interview."[9] This concept can be merged with the MBO interview through its approach and usage of the employee's doing his/her own collection of objective data.

The work climate might also include meetings whose topic is "What did I learn from my work situation this week?" and rotating work assignments on a temporary basis to allow for greater mobility, interdepartmental cooperation, and, most of all, developmental growth in a climate of change.

Finally, the educative manager or facilitator must keep in mind that employees want to learn what has immediate application for them today. Accordingly, they have a problem-centered orientation to learning. Therefore, the first step is not

to give the employee a textbook, but rather to ask what s/he is concerned about. Lastly, the program should provide sheltered conditions which are free of fear or punishment for the practice of new learning as quickly as possible.

Knowles summarizes these implications, as they apply to the supervisor, in "Ways of Learning" shown in Table IV below.

Table IV

Ways of Learning

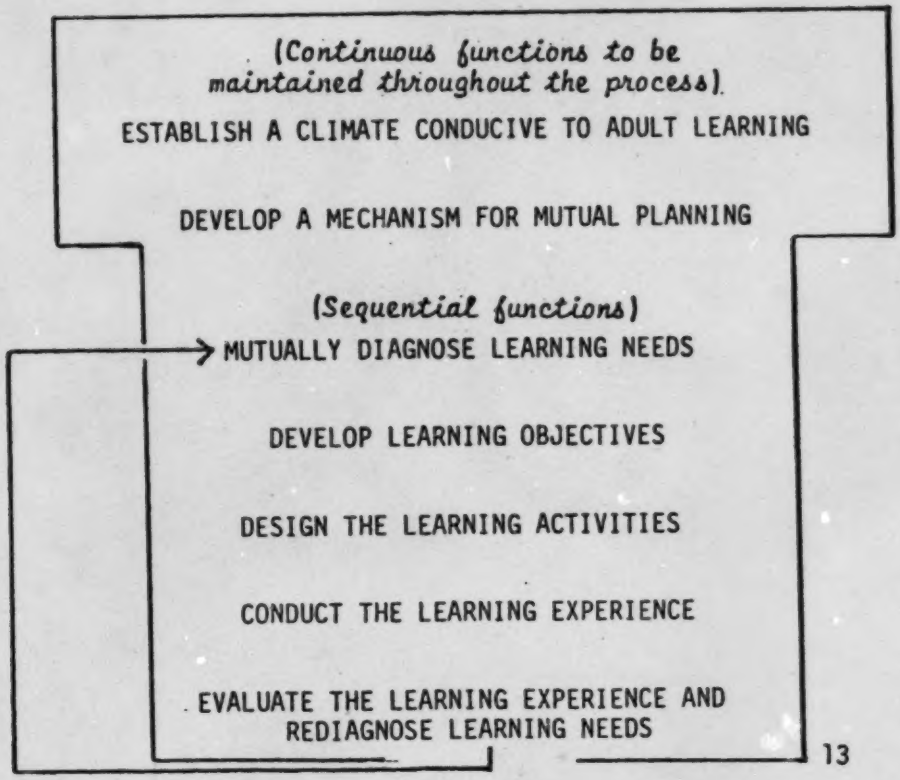
Resources for learning	Required conditions	Required skills
Reactive		
Teacher in traditional course	Willingness to be dependent. Respect for authority. Commitment to learning as means to an end (e.g., degree). Competitive relationship with fellow students. (The way most of us were taught to learn—not recommended)	Ability to listen uncritically. Ability to retain information. Ability to take notes. Ability to predict exam questions.
Proactive		
Printed materials (and experts)	Intellectual curiosity. Spirit of inquiry. Knowledge of resources available. Healthy skepticism toward authority. Criteria for testing reliability and validity. Commitment to learning as a developmental process.	Ability to formulate questions answerable by data. Ability to identify data available in printed materials (e.g., by Table of Contents, Index, etc.). Ability to scan quickly. Ability to test data against criteria of reliability and validity. Ability to analyze data to produce answers to questions.
Resource people (supervisors, experts)	Institutional commitment to individual growth as capital investment. Definition of role of supervisor as including "resource for learning." Time availability by both supervisor and employee for conferences. Inclusion of both supervisor's and employee's learning accomplishments in reward system. Spirit of mutual assistance in growth and development.	By Supervisor: Ability to convey respect, caring, and support. Ability to provide data (and feedback) objectively and nonthreateningly. Ability to ask probing questions while keeping locus of responsibility in employee. Ability to use employees as resource for his own learning. Ability to listen empathically. *By Employee:* Ability to formulate goals. Ability to assess present level of performance. Ability to collect and analyze data about performance nondefensively. Ability to relate to supervisor as a resource for learning. Ability to be open and honest with supervisor.
On-the-job and life experiences	Collaborative relationships with colleagues. Commitment to learning as a developmental process. Institutional support for learning from mistakes. High valuation of self-direction.	Ability to collect data through: (1) own observation, (2) feedback from supervisors, peers, and subordinates, (3) analysis of records. Ability to use data for self-diagnosis of needs for self-improvement. Ability to accept responsibility for own learning. Ability to experiment with new behavior.

To facilitate this process, Knowles also suggests that industrial educational counselors help individuals resolve their own problems and make their own decisions through strengthening the individual's decision-making abilities. However, he also notes that, since the feature of an institutional adult education program is so new, the exact role of the educational counselor has not yet been well defined.[11] Finally, he states that an educative environment is also a productive one.[12]

The Andragogical Process of Program Development

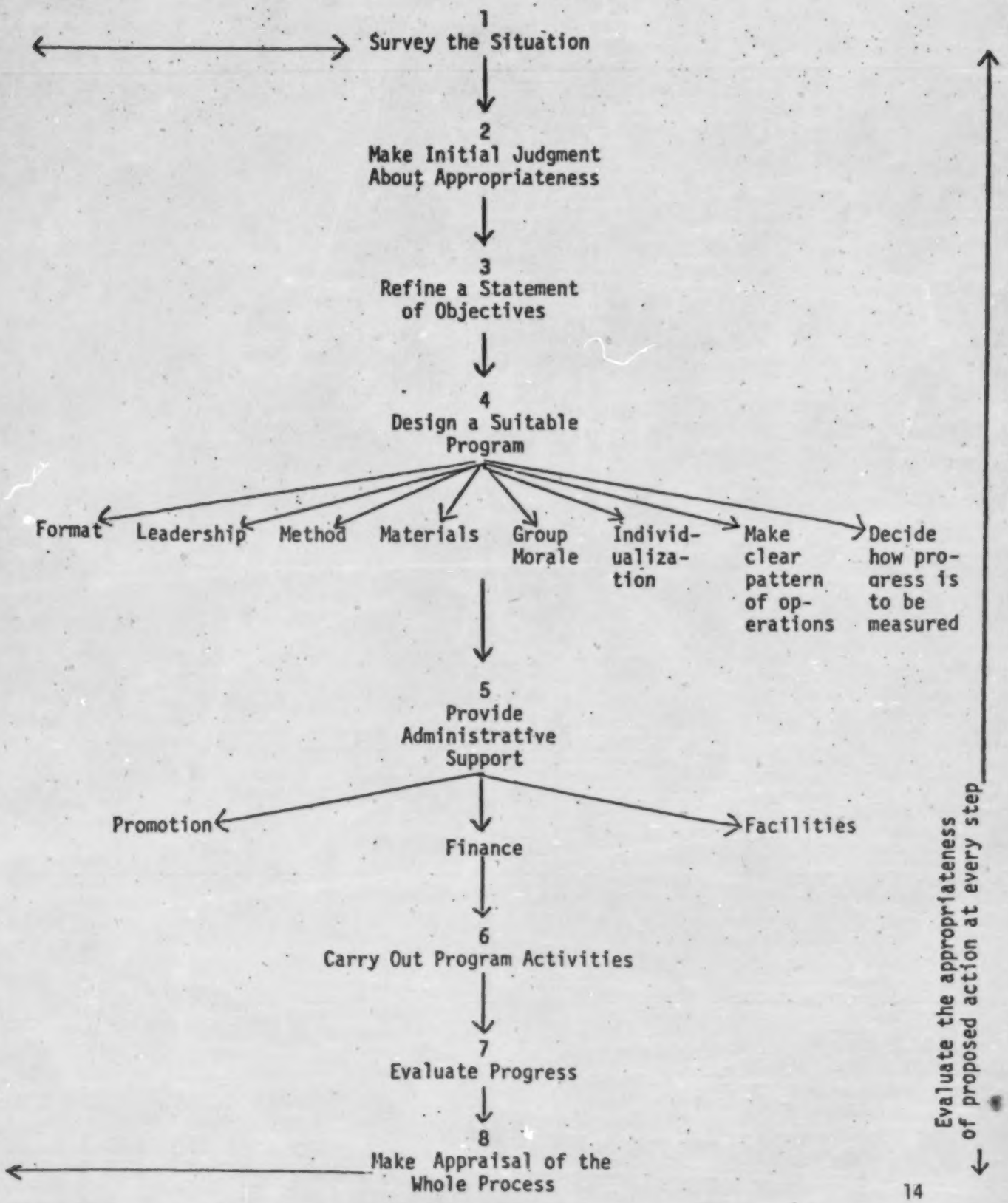
Knowles contends that the andragogical process of program development may be broken down into a seven-step outline. This process, as presented by Hartl, is seen in the following figure:

Figure 4. The Andragogical Process of Program Development
A seven-step outline


(Continuous functions to be maintained throughout the process)
ESTABLISH A CLIMATE CONDUCIVE TO ADULT LEARNING
DEVELOP A MECHANISM FOR MUTUAL PLANNING
(Sequential functions)
MUTUALLY DIAGNOSE LEARNING NEEDS
DEVELOP LEARNING OBJECTIVES
DESIGN THE LEARNING ACTIVITIES
CONDUCT THE LEARNING EXPERIENCE
EVALUATE THE LEARNING EXPERIENCE AND REDIAGNOSE LEARNING NEEDS
13

The basic steps in program development are summarized by Hartl in Figure 5 below.

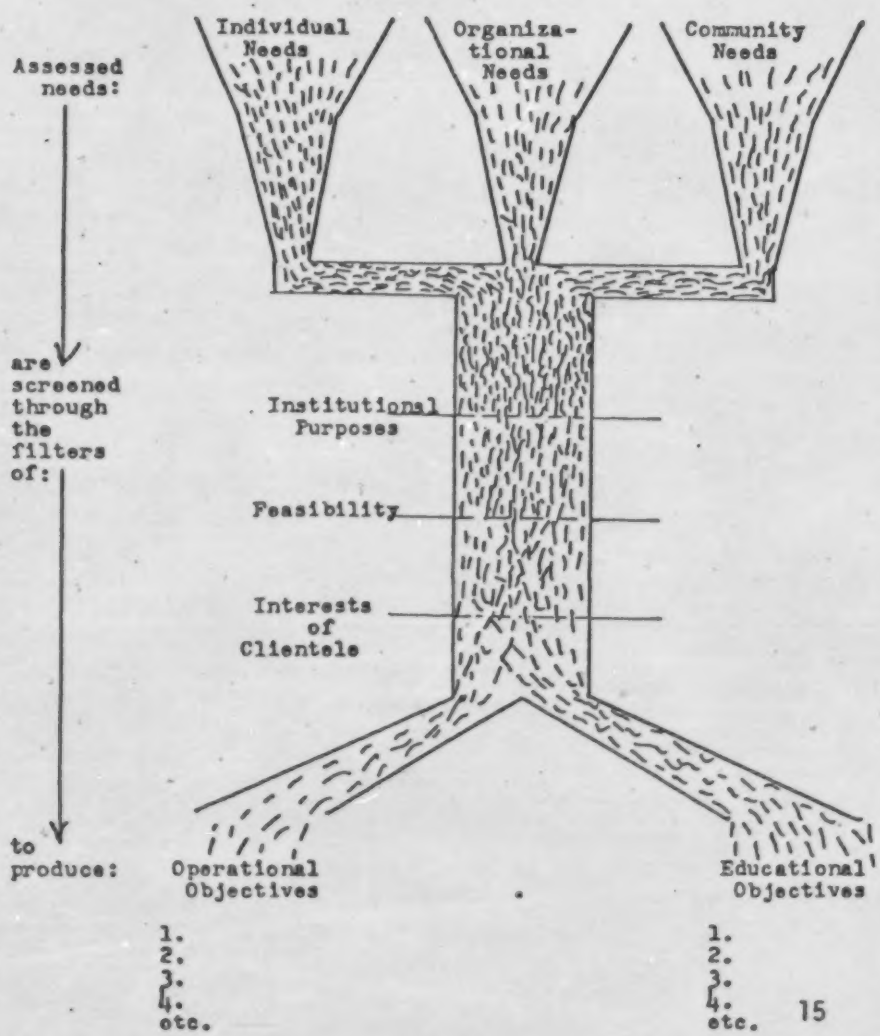
Figure 5. Basic Steps in Program Development



14

Pennington illustrates that adult education usually takes place in organizations, and these organizations also have interests and needs. Knowles contends that the interests and needs of the individuals in these situations are, therefore, filtered through institutional needs. He, thus, divides needs (objectives) into two categories: Operational objectives (those things which need to be done to improve the quality of institutional resources for meeting educational needs) and Educational Objectives (the kinds of behavioral outcomes which the participants are invited to seek in spedific areas of content, i.e., things which are good for his/her own needs, good for the enterprise, and good for society. Figure 6 illustrates this concept.

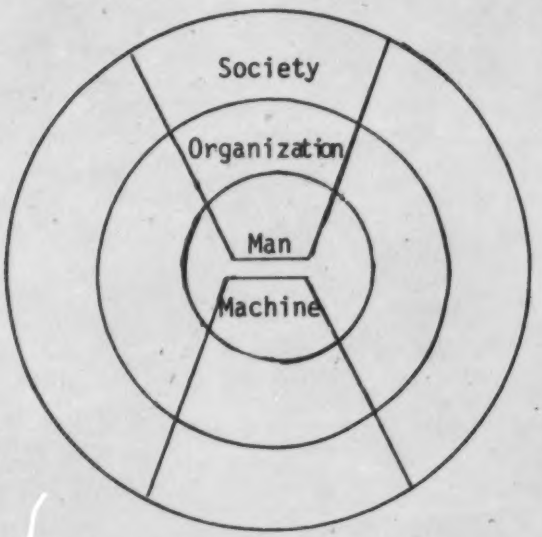
Figure 6. The Process of Translating Needs into Objectives



15

Seen another way, this suggests that the individual's needs should shape both the organization and the society. Figure 7 illustrates this point.

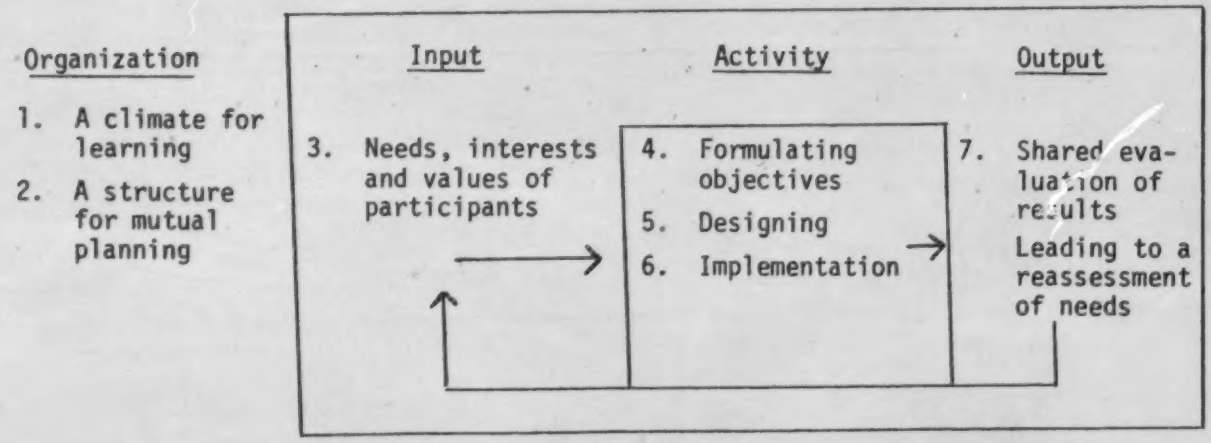
Figure 7. Individual Needs Shaping the Organization and the Society



Andragogy from a Systems Approach

From a general systems approach, Ingalls suggests that andragogy may be viewed as a learning system model that uses a "feedback loop;" and in this sense, it may be considered to be a continuous development process for adult learning. His schematic is presented below.

Figure 8. Andragogy as a General Systems Model



16

Through the systems approach, Ingalls contends that andragogy is a way to

1. learn directly from experience,
2. reduce social conflict through interpersonal activity,
3. continuously reassess learning needs as they emerge from the demands of a changing situation.[17]

Ingalls contends that "By applying general systems theory to education and management, the systems model of applied andragogy will bring about a fusion of human relations and science."[18] He believes that this approach will help individuals and groups to transcend the existing limits of organizational competence and achieve new levels of excellence and creativity.[19] Ingalls also states that "andragogy tends to unlock the secret of motivation and involvement without leading to group disintegration or the loss of a sense of need for both social progress and social control."[20]

In conclusion, the andragogical approach points directly to a differentiation between programs which are based on what somebody thinks people ought to learn and programs which start with what people themselves want to learn. The adult educator's skill is in helping adults discover and take control over their own needs by reaching them at their own level of interest.

PART IV

The AMBO Model: An Introduction

The ideal of the Andragogical Management-by-Objectives (AMBO) model is to relate individual goals to organizational/social goals through a process of negotiation called Mutual Articulation (MA). Utilization of this model would be industry's opportunity to fuse learning theory with Management-by-Objectives (MBO).

The AMBO design recognizes the individual's right to grow and to develop in

ways that are meaningful personally vis-à-vis other-directed. From a political standpoint, AMBO recognizes that personal growth alone is a palliative; it must also encompass organizational growth and social change. In fact, the main idea of the combined AMBO/AHRD process model is to use these newly acquired values and knowledge in such a way as to use the organization in which one works to change society in terms of perferred alternative futures. AMBO is proposed as a means to work through this environment in order to change society and at the same time to relieve the sense of helplessness and powerlessness which the individuals experience within such a structure. From a social science perspective, AMBO is a means to tap the unrealized potential present in corporate human resources. Finally, from a managerial viewpoint, AMBO recognizes that, when individual goals and managerial goals are in opposition, production is likely to be poor. AMBO seeks to remove this factor from the management equation through its recognition that high goals of efficiency and productivity can only be attained through an organizational process that is geared to satisfy real human needs.

As a process, AMBO focuses on development of the individual worker's capacity to learn, create, change, and grow. It is employee-centered rather than programmer-centered. This is in contrast to the traditional MBO model which is problem-centered in providing skills, knowledge, and attitudes to deal with the problems at hand in a relatively static environment. The AMBO process, instead, focuses on mainstreaming growth throughout the entire knowledge organization which characteristically operates in a state of flux. In this atmosphere, AMBO increases the employee's serviceability to him/herself, the company, and society.

Thus, AMBO is an appropriate theory for the nature of eco-technological development facing management today; and, from an educational perspective, is acceptable since it is in line with human nature as well as social and economic goals.

Need for a Different Approach

AMBO differs significants from QWL, LMCs, EPCs (Employee Participation

Committees), and Quality Circles as well as other forms of job enrichment activities--all of which involve no real redistribution of power--since it is premised on the beliefs that (1) personal satisfaction and development need not be subordinate to task accomplishment and efficiency, and (2) that organizations should be used to change society. The above-mentioned programs are, therefore, rejected out-of-hand because they are, in addition, (1) activities undertaken as periferal in nature by the organization, (2) undertakings which may be designed and/or used to break unions, and (3) failing to recognize the right of the human to grow and to participate in an informed way. In fact, it may be said that such programs limit participation to the methods to use or when to use them during the task performance. Their insidiousness, therefore, lies in the fact that the individual thinks s/he is participating in decisions which effect them when in reality they are not--and the people sense this, and this is why it all falls apart. In conclusion, these programs merely represent a reshuffling of authority but no real change in the power structure nor its redistribution.

Since being excluded from attaining one's full humanness and from experiencing opportunities for democratic participation at the workplace decreases the possibility of rising to the post-bureaucratic period peacefully, the AMBO design is an attempt to make countercultural innovation more respectable. It is also an attempt to convert political questions into technical-managerial ones versus our present policy of insulating workers from the political issues of the wider democratic society. It is hoped that the results of such a model will produce catalytic organizations capable of revolutionizing society and preclude the possibility of a society in revolution.

Thus, while improved quality output is still a major criterion, AMBO legitimizes the desire to achieve personal growth and higher social development through the organization. It says that work should serve the people, not the other way around. It attempts to transcend the repressive, non-democratic work structures by educating people to take responsibility for making their tasks meaningful. With the primary

focus of the model on the learner's experiences through participation and self-direction, the individual's situation is seen as synomous with the problematique (a global view of crises which may preclude the existence of "Spaceship" Earth) facing the global village; and from this viewpoint, AMBO seeks to create a work environment in which the pursual of personal and selfish ends automatically helps the individual, the organization, the Country, and the human condition in general.

Limitations of the Model

The AMBO design assumes the following:

1. The teaching characteristics of all supervisor/facilitators are the same and that all workers will be equally affected by these characteristics
2. Workers will demand knowledge at higher levels related to their own development and performance competencies
3. It is noted that an increase in job satisfaction may not necessarily lead to increased job performance during the transition stage of development
4. It is also noted that what is good for the society and the problematique in the longrun will probably not be good for the enterprise in the shortrun
5. Organizational support for this model will be equally strong and consistent throughout the organizational structure and in all types of organization-individual interactions
6. Inner problems can be projected into the outer world through the performance of task. Therefore, improving the task or society will also improve oneself.

Anticipated Outcomes of the Model

The following twelve outcomes are anticipated:

1. To enable change by the people, not for them. The question is not how to make people more responsive to the changing needs of the organization but rather how to make the enterprise more responsive to the changing needs of people
2. To establish an environment in which the sum total of individual goals, whose authority is based on knowledge, are managing the changes that occur
3. To facilitate social direction through autonomy and participation in an attempt to reinforce and reinfuse democracy in a manner which will diffuse our present mode of value dissensus
4. To create organizations capable of anticipating crises rather than responding to them through participation rather than consent, organizations which confront conflict rather than surpress it, organizations that think in terms of the longrun rather than short-run profits, and organizations

which think in terms of comprehensive means rather than specific ends.

5. To develop a willingness to participate in social evolution
6. To help identify those types of decisions which are subject to participative control as well as those things which may not be but whose occurrence would be likely to have a significant impact on the probabilities for attaining preferred alternative futures
7. To reach consensus at the micro level, since it is at this level that each of us searches for our own identity. This consensus is committed to mainstreaming and advancing planned social change and social consensus at the mega, macro, and meta levels.
8. To enable workers and management to help the worker to discover ways to meet their needs through the organization
9. To enable the individual to understand and do things that s/he did not recognize s/he could do or wanted to do before
10. To create the best possible integration of individual and social goals through the enterprise
11. To create organizations which will supplement and implement the learning processes undertaken by self-directing adults
12. To build introspection and responsibility into task performance so that the worker is always performing at full potential and is constantly exhibiting a concern for self-improvement

Objectives of the Model

From an educational point of view, the following objectives are identified:

1. Through the basic relationship between facilitator and worker (dyad), the individual will learn more about him/herself, how they are seen by others, how their activities affect others, what their needs are, and how their needs coincide with others, with the society and wider humanity, and how these needs can be attained through the enterprise
2. Individual workers will learn to develop disciplined freedom of inquiry through a variety of interchanges both within the organization (lateral and horizontal) and within the community at large
3. Through this inquiry and experience, workers will learn what helps and what hinders productive learning and quality task performance
4. Worker/learners will learn how to set goals, communicate, evaluate, reach "win-win" consensus, observe, lead, focus on a topic, problem or idea, discover, and meet their own needs and those of their society and community through the enterprise

In addition, worker/learners in the knowledge organization will be able to

1. recognize what helps and what hinders their own learning
2. learn how to arrange personally relevant learning experiences
3. learn to modify their behavior in ways that enhance their own growth and development
4. assume a greater responsibility for their own learning aside from the organizational structure

5. learn to identify individual, organizational, and community difficulties and to utilize creative means to solve them
6. make creative use of various educational support systems within their organization and community in order to support their own self-directed learning projects and to solve their own problems
7. structure learning events which will allow the individual to invest past skills, knowledge, and abilities into the event as well as to gain new learning
8. to realistically assess what has been learned
9. to invent, conduct, and evaluate individually tailored educational projects which are designed to meet individual, organizational, and social needs and to reformulate and refine a further action plan based on this personal growth assessment.

The activities in which the employee will engage during this process are as follows:

initiating activities	negotiating
information-seeking	summarizing in a variety of manners
information-giving	demonstrating
opinion-giving	teaching and testing
problem-solving	coordinating
creating	evaluating and assessing
elaborating	diagnosing
working more efficiently	increasing productivity

The AMBO Process Model

The AMBO model calls for self-directed, proactive learning in a workplace context. The basic idea is to learn to learn in the context of one's work. This includes technical, work-related learning as well as liberal and leisure education of a non-work related nature. Precedents for such programs abound throughout both business and education literature. For instance, Nadler documents the case of the Florida Power and Light Company, a program whose prime purpose is to provide employees with a developmental experience resulting in their broader use of their capacities.[1] Knowles documents the Westinghouse Corporation's andragogical executive forum.[2] Writing for the Harvard Business Review, Nancy Foy describes a task-force concept used to solve in-house problems through cross-training. She concludes that people learn not from books but by experiencing the dynamics of the organization and the situation itself.[3] In another instance, a production supervisor in a General Motors Corporation hiring unit recently discovered that his cuttergrinders were being asked to do things they didn't know how to do. Upon investigating

their training program, he discovered their E.I.T. classwork had been for millwrights, not cuttergrinders. Therefore, his workers have now created a new E.I.T. program specifically for cuttergrinders. They sought technical advice from the National Tool and Machine Company, formed themselves into a committe, and prepared all the materials for this new course themselves during their workday.[4]

The point of the above information, of course, was to briefly identify some of the many innovative instances in business today which intermingle task performance and self-assessment with all types of adult learning--technical and liberal so as to teach workers how to think, not what to think. Such precedents amply demonstrate worker interest in terms of experiential needs assessment, self-directed learning activities, integration of new behaviors to change the current situation, and self-assessment. In fact, Ingalls discovered that such processes can easily benefit from the continual application of the main tenets of andragogy, i.e., (1) setting a climate for learning, (2) establishing a structure for mutual planning, (3) assessing interests, needs, and values, (4) formulating objectives, (5) designing learning activities, (6) implementing the learning activities, and (7) evaluating the results (reassessing needs and values).[5] In a personal interview, Ingalls added the following:

> Knowles' goal was to distinguish between pedagogy and andragogy, but what he was actually doing was creating a learning theory which can be turned into a management theory . . . . and [this] is 100% congruent.[6]

Ingalls sees this as the basis for a completely new learning theory readily adaptable to technology. His charts, presented below, are illustrative of this concept.

Figure 9. A Model for Improving Performance and Results

Omitted @ J. Ingalls request

7*

Ingalls has also developed an andragogical model for assessing and analyzing performance. This model is presented in Table V below.

Table V

Omitted @ John Ingalls request

*This material is yet to appear, and ALL rights of distribution and duplication in any form are strictly reserved by Mr. Ingalls.

Table V (continued)

B*

This may be contrasted with the MBO system, which Odiorne outlines, as follows:

1. Identify the common goals of the whole organization unit for the coming period
2. Sketch the actual organization of the group under your supervision showing titles, duties, relationships, and impending changes
3. Set objectives for the next budget year with each man individually
   a. Ask the subordinate to make notes on what objectives he has in mind for the next year and set a date when you'd like to discuss these with him
   b. Before that meeting, list some objectives that you'd like to see him include
   c. In your own personal conference, review the man's own objectives in detail, then offer your own suggestions or changes
   d. Have two copies of the final draft of his objectives typed; give him one and keep one yourself
   e. Working from the final agreement, ask him what you can do to help him accomplish his targets. Note his suggestions, keep them with your copy, and include them in your objectives, if pertinent
4. During the year, check each subordinate's goals as promised milestones are reached.[9]

Odiorne also cautions supervisors to be sure to clarify common goals before individual goals. Examples of such common goals include the amount and rate of profit, contributions to profit, etc. Furthermore, he also notes that it is necessary for the organization to set and define the boundaries within which the subordinates can propose goals. Finally, Odiorne believes that

> It is up to the manager to let his subordinates know what is expected of them--what constitutes good performance and what constitutes unsatisfactory performance . . . . These standards of good and poor performance [should] subsequently let the employee know how well--or poorly--he has performed over a specified period just completed. The superior does [this] constantly during the day-to-day course of his administration, and he also accumulates these observations and sums them up in a periodic review.[10]

Knowles comments on the relationship between the MBO system and the andragogical process in the following:

*This material is yet to appear, and ALL rights of distribution and duplication in any form are strictly reserved by Mr. Ingalls.

> A recent refinement of the performance review procedure that is especially consistent with the spirit of andragogy and has proved to be effective in assessment is the management by objectives process.[11]

Knowles also believes that "MBO interviews are useful for helping an employee collect objective data about how far he has come in achieving his objectives and what he needs to do to become better."[12]

Therefore, to more closely wed these two concepts, the AMBO design is proposed.

To begin the AMBO process, the employee may (1) self-nominate to his/her supervisor/facilitator or any other manager/facilitator within the organization whose expertise and/or personal style is compatible with the individual learner's, (2) be nominated to the process by his/her QC group or EPC, etc., (3) be referred to the process by the enterprise's education counselor, (4) be referred to the process as part of the organization's Employee Assistance Program, committee-person, etc., or finally (5) be referred to the program directly by the supervisor/facilitator of the employee's immediate work group.

The purpose of the initial AMBO sessions with the facilitator would be to (1) discover and/or elaborate upon a life-situation needs/interest appraisal which would encompass the personal, work, and social realms, and (2) provide for the participation in "unfreezing" activities such as viewing a "Common Vison" film. The result of this preliminary stage would be to have ascertained the employee's needs and the relationship between these needs and society as they might best be met through the AMBO process. Here, the employee would undergo perceptual changes in order to gain his/her own personal and social ends.

In the AMBO model, the next step, the planning process, has earlier been referred to as Mutual Articulation (MA). Here, in a 1-to-1 dialogue between the individual learner and the facilitator/manager, the following occurs:

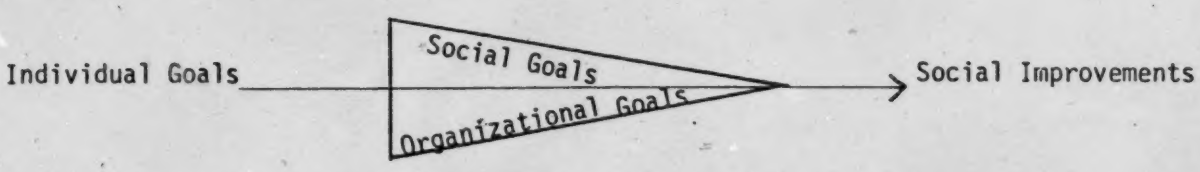
1. Interests and needs as they relate to the individual, the organization and the society are clearly identified and put into writing
2. Present performance is identified. This may include the employee/learner's data presentation (performance portfolio), observations by supervisors, group feedback, and other forms of objective and/or quantitative input.

3. Mutual expectations are discussed and objectives are prioritized
4. A personally relevant pattern of learning experiences is discussed and agreed upon
5. These patterns are fitted into the employee's worklife, family, and community life
6. The learner sets forth how the competence or knowledge is to be demonstrated
7. The employee is able to discuss and choose tailor-made rewards expected at the outcome of the learning experience. These may be either intrinsic or extrinsic. In union shops, such rewards would be in addition to the bargaining agreement
8. This information is drawn up into an individual learning contract or a personal work contract which may be computerized for easy review and update.
9. The results of the program are assessed and measured in the manner prescribed by the learner
10. Learning needs are rediagnosed in light of present performance. The plan may be modified in terms of the individual's life trajectory.

From a MBO perspective, evaluation is still taking place; however, the employee has conducted his/her own needs assessment, formulated personally relevant goals, proposed and carried out plans of action related to those goals, selected relevant or appropriate rewards for the attainment of the goals, and has been evaluated in terms of these goals.

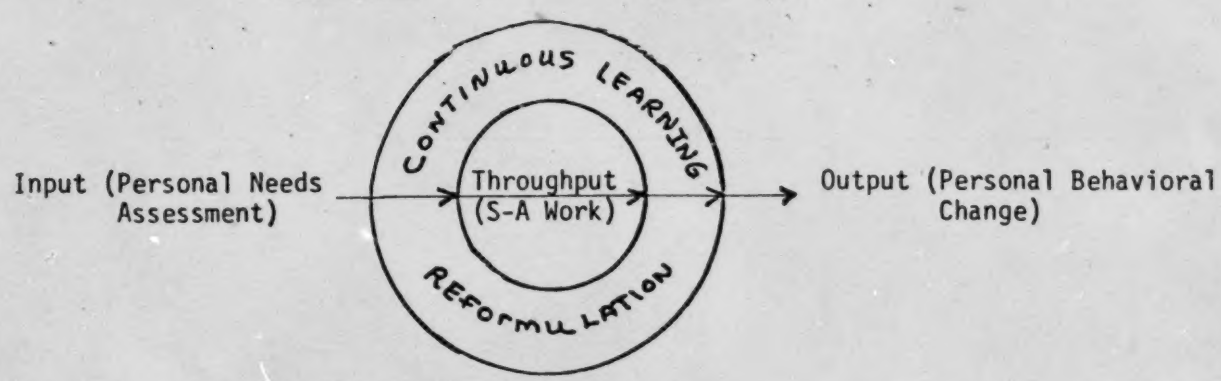
From the view of a participative change cycle, the following figure demonstrates the model:

Figure 10. The AMBO Participative Change Cycle



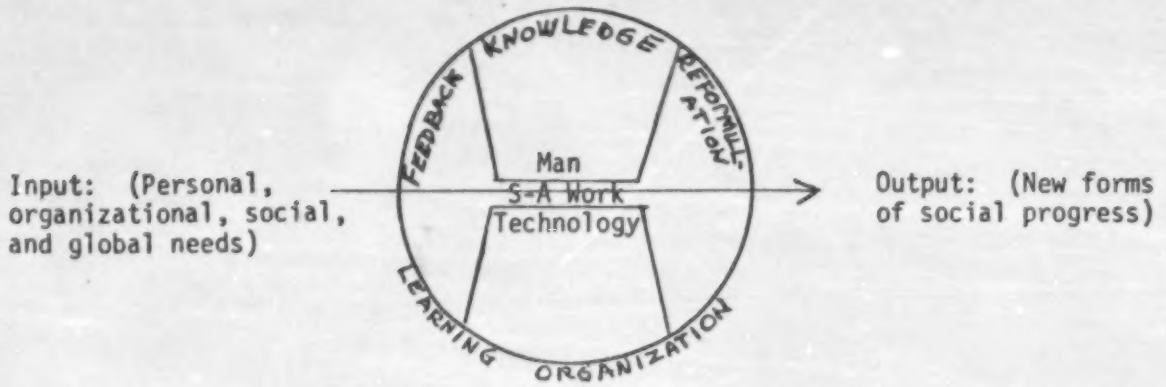
From a systems approach, the AMBO model may be viewed as follows:

Figure 11. AMBO from a Systems Approach



More specifically and in terms of the knowledge organization, the following figure illustrates the AMBO systems approach looking at the enterprise as a whole.

Figure 12. AMBO in the Knowledge Organization



The following is an example of a typical AMBO scenario:

1. The employee/learner writes out his/her present job description
2. The employee presents present performance levels
3. The employee identifies needs or interests related to changing the performance in a personally relevant manner
4. The employee seeks out a facilitator who would guide the attainment of the desired behavioral change(s)
5. The employee/learner and the facilitator would together negotiate expectations and formulate personally relevant rewards
6. Goals are set and the methods of evaluation and assessment are formulated by the individual
7. A learning-work contract is drawn up and fed into the employee's PDP file
8. The employee attains the goals and is released to supportive environments to practice the goals. (This may include release time for community service.)
9. Goals are reformulated as a result of self-assessment. The contract is refined, changed, or canceled. The process begins again.

Reward System. Rewards from this process would be basically intrinsic, although opportunities for cafeteria-style rewards would also exist; and evaluation outcomes could still relate to salary and/or promotions as a result of the MA process as set forth in the work-learn contract. The most important feature of this concept, however, is that performance of S-A work would become a means of attaining greater independence and personal growth opportunities. Hence, the actual performance would disclose and demonstrate the individual's self-worth and dignity thereby being the means to the individual's liberation. Thus, the control over

rewards will have shifted from the company to the individual; and the rewards would be limited only by the individual's own readiness to learn and his/her own personal preferences.

Types of Growth Opportunities. First of all, internal educational tracking needs to be relaxed. Let the individuals undertake learning projects where and how they want--irrespective of their status or job title. This will promote mutual understanding and will encourage cross-fertilization and problem-solving. Other suggestions include:

1. Use of work groups of alternate members to encourage and facilitate peer instruction
2. Vertical and horizontal job exchange assignments (subject to the terms of the bargaining contract dealing with training and education in union situations)
3. Combining OJT with an unrelated self-development project such as art
4. Resource modes personalized to the individual's lifestyle such as workbench tapes or computer programmed instruction for slack periods, down time, and free time. (Singer supports this innovation by stating that "There is no reason why these devices cannot be made available on the shop floor."[13]) Video tapes for home TV viewing, cassette tapes for the car, or books designed for carpool discussion are also suggested.
5. Intergroup seminars should also be encouraged. For instance, Internal Education Credits (IECs) could be given for participation in a community action project or a union discussion group.

Role of the Facilitator/Supervisor. As a rule, facilitator/supervisors will be unfamiliar with the andragogical process. Therefore, they must all enroll in an Introductory Andragogy methods course in order to learn how to serve as facilitators and resource points for self-directed learners. Their initial exposures should include role playing, video-taped problem-solving, sensitivity training, decision-making, value analysis, andragogical learning theory, internal and external resource utilization, and AHRD policy. Next, they would need to serve a few months as co-facilitators under an experienced facilitator. Higher management must release line managers to learn this art and science of helping adults learn, even though it might be initially threatening to the Training Department. Upon assignment to a permanent group, facilitators should still be occasionally rotated and their role augmented by professionals, guest educators, and other community learning

resource persons. Facilitators would themselves be accountable for how well they move individuals along toward their own goals in a helping manner. More specifically, the roles of the facilitator are as follows:

1. The facilitator must be able to help people to analyze values related to their experience; to help them to learn how to learn and to get control of their own development and learning processes through their own objectives based on their own needs and those of the society.

2. The facilitator will retain the central coordinating position and will maintain a non-competitive, supportive learning and working environment; but the learner must be able to decide on the resources to be used, when, and how they are to be used.

3. The facilitator will carefully analyze the task or goal to be learned and will present the learner with enough sources of information to form conclusions on his/her own. The facilitator decides what the crucial learning elements are and helps the learner put the task into his/her own meanings as well as helps to converge known experiences on the desired goal.

4. The facilitator tries to analyze the need level (Maslow) of the learner and helps to guide the individual toward ever-increasing competencies, abilities, and knowledges though giving no direct instructions. Rather, the learner is invited to work through a set of tasks or activities which will create those abilities, competencies, etc.

5. The facilitator/manager also becomes a change agent in the sense of trying to change the social system of the organization and the wider society and one who directs individuals toward information relating to change. The facilitator also tries to provide unity between the different aspects of the worker's life in order to effect new personal values translated into new behaviors and life style. S/he also helps to reinforce and extend these value changes throughout the organization to affect planned social change.

6. The facilitator must be sure to present <u>all</u> the benefits or consequences that the proposed activities may bring about in a manner that will be attractive to the potential participant. To do this, the facilitator should learn as much about the learner's value orientation, needs, and life style as possible. In addition, the facilitator must be sure to present the learner with the maximum feasible options at all points.

7. The facilitator should be aware of the learner's performance level in order to help modify or redefine goals, experiences, or learning resources so that the learner can proceed toward the goal in the most efficient and desirable manner. Here, the facilitator may wish to keep some type of anecdotal record.

8. The facilitator should identify discrepancies between what the learner says s/he is doing and what is actually happening and help the learner to analyze the discrepancy as necessary.

9. The facilitator helps to arrange for desired corrective prescriptions, arranges situations where practice may best occur or knowledge best be integrated, arranges for the most positive consequences for learning and performance, and aids in selecting resources, solutions, and solution implementation at all levels of the learning cycle.

10. The facilitator helps to analyze and clarify the individual's views and needs in relation to the organization and the larger society.

11. The facilitator participates in the evaluation process to insure that what has been learned was what was intended to be learned.

12. The facilitator, through the MA process, answers such questions as "What's in it for me?" and "How much will management do to help me meet my needs?"

13. Works in tandem with the organization's education counselor, Employee Assistance Program director, Learning Coordinator, other integrator/facilitators, the EPCs, QC groups, and all other professionals or support personnel involved in the learning process either internally or externally.

14. Within the MA process, the facilitator specifically will (a) help the individual to obtain goals in a more effective manner than the person ordinarily would, (b) helps the person to pursue goals which s/he might not otherwise pursue, and (3) assist the individual in acting out values and affirming these new values as worthwhile.

Mutual Articulation--A Closer Look. The spirit of the MA process is to provide a setting and the opportunity for decision-making, goal-setting, evaluation, reward negotiation, and, in general, the seeking and achieving of personal integrity through creative and spiritual development. Here, it is legitimate to question the basic personal, organizational, and social values and to examine the political and social implications embedded in these values. This process is, moreover, necessitated as a response to the revolution of rising expectations, the revolution against authority, and growing job mismatches. The MA process is intended to be a mediator between these expectations and the feelings of powerlessness. The vertical intent is to help the organization to identify goals in terms of the individuals' preferred alternative futures. In all, the basic aim of the MA process is to yield mutual reeducation and, thus, desirable change at the personal, organizational, and societal levels. MA deals with expectations--internal and external to the person--through actual experience, personal assessment, knowledge acquisition from a variety of resources, and the selection of rewards that are personally relevant. For instance, a sample scenario question for the individual to answer during the MA stage might be "What would you like to be doing about each of these items tomorrow? In six months? In a year?

MA is also a means by which two people, face-to-face, can negotiate and articulate what they want from one another and what they are willing to do to help one another accomplish these goals. As such, this could provide the basis for the

individual work contract and, in the least, could provide longitudional records of employee growth and development. For instance, having identified a particular weakness in one's job performance and after having located a specific means to correct this deficiency, the individual may wish to negotiate for a tuition package for his/her son rather than a raise; and given computer capacity today, there is no reason why this cannot be done!

MA also encompasses the needs assessment interview. It is recommended that this interview be open and non-directive, although other valuable methods of data gathering should also be considered. An example of a suitable activity during this stage might be to measure job involvement. This could be done by asking each employee to rate each element of his/her job performance on a scale of 1 to 10 depending on how concerned they are with each element. Then ask the person what might help them to be more concerned about the performance of each of these.

Goal Setting. The distinguishing feature of the AMBO model is that it seeks to combine evaluation with education in a self-directing manner. In this process of andragogy, therefore, the individual learner becomes the central design agent; and learning occurs through one's own decisions, experience, and participation. The ultimate aim of this process is to restructure the task so that the work itself becomes a means for personal fulfillment and all of the activities related to its performance become part of the worker's education, i.e., growth and development. Within the goal-setting process, the aim is also to always present the discrepancies between the present status of the person, the organization, and the society and the future norm and to provide integrative activities so that the system and the individual may remain in equilibrium during the transition stage--in a manner that is both desirable by the individual and preferred by the organization. Thus, there are three perspectives for the goal-setting process; namely, (1) the learner is asked what interests him/her on the job and in life in general, (2) the society is examined to see what issues could be discovered or solved from the attainment of the individual's objectives, and (3) the organization is examined to see what values

might be transmitted or shaped by the attainment of these objectives. Thus, the integrator helps to set realistic goals in terms of the learner's interests and abilities and the organizational and social needs. Specifically, the goal-setting process seeks to do the following:

1. translate worker-identified needs (concerns) into objectives and then into educational program objectives,
2. allow persons to learn at their own pace with materials that are relevant to their daily lives, their goals, and which utilize their experience,
3. develop personal short- and long-range goals that are congruent with personal, organizational, and social development,
4. upon ascertaining the purposes of learning, i.e., goal identification, identify activities to meet those specific needs,
5. closely match learning tasks to the skill or goal which has been identified,
6. identify "key elements" of the task performance, minimal acceptable standards, and preferred performance standards, and
7. carry out objectives and resolve the lack of mutuality or performance discrepancy.

Within the goal-setting process, setting objectives is a key issue. In doing so, the following should also be considered:

1. Alternatives for attaining the objectives
2. Consequences of attaining or not attaining the objectives
3. Appropriate means of attaining the objectives based on the learner's preferences and lifestyle
4. Task involvement and commitment, and
5. Contingency plans for attaining or changing the objectives

Since goal-setting involves values clarification and priority setting, life goals should assist in setting the objectives. Examples of this function might include such questions as

1. Why is the selection of this topic/area important to you?
2. Describe what you would expect to receive from the organization or the community if you were to implement this function.
3. Describe what you would do to acquire this ability over a set period of time.

Being able to make these decisions themselves will be a major motivating force in the performance of the task or competency since the individual will have conceived of the objectives on their own and the area of participation now falls within their own scope of interest.

After going through the above procedure, a list of the broad functions which the

acquisition of the objectives will produce should be combined with a list of how these functions may relate to the organization and to the larger society being sure to keep in mind the individual's original interests. For example, how could understanding a particular technology relate to greater social participation for the shaping of the future. This would, thus, translate the individual's efforts at coping with change and produce greater adjustment and consensus. Finally, it is important to allow the individual to become involved in different social problems which will change their points of view and force different attitudes.

Appraisal of Development. The purposes of appraisal are (1) to identify potential promotion to another task or to determine salary increments based on knowledge acquisition or to determine whether individually-styled rewards have been met, and (2) to identify further developmental needs and to provide a setting for feedback, reassessment of objectives and goal refinement or change. In general, the appraisal process should allow the individual to discover whether s/he has moved closer to their own personal goals, social ethic, and values. Thus, the evaluation system must allow the adult to measure progress against previous performance, not that of someone else or against objectives which have been externally determined. The assessment procedure must recognize that the person is both capable of planning and extending his/her own learning. The appraisal should take place at a point that is relevant to the objectives, not on so random a date as the anniversary of hire.

The self-appraisal should include (1) what learning has taken place, (2) how the individual has demonstrated or practiced this new learning, (3) what activities would be helpful to undertake next, and (4) how and why they are to be achieved. It should also include and identify accomplishments, exemplary performance, and societal "stakes". Finally, successful evaluation will occur only if the individual's learning goals have been stated in such a way so that their accomplishment gives rise to evaluation criteria. Examples of suitable evaluation input might include:

1. anecdotal records by the supervisor and/or employee
2. a tape of the assessment interview for review during subsequent development phases
3. composite appraisals (pencil appraisals) by peers

4. any quantitative data indicative of performance or competency attainment
5. project accomplishments in the community or organization
6. field experiences either horizontally or vertically, since they provide linking relationships to different systems and validate consensus
7. formal staff appraisal in which the supervisor in conjunction with other levels of management review present performance, past performance, and future performance indicators. This would constitute the long-range record of how well the organization has met the individual's needs over time.

Reformulation. Feedback is an essential part of the assessment process since it provides an opportunity to reformulate and reassess learning needs, to refer to goals and make further clarification of them, and leads to role clarification and decision commitment.

Summarizing the Model

AMBO is congruent with andragogy since it involves the continuous circular application of the andragogical model as formulated by Malcolm Knowles. Furthermore, the model is legitimate from the MBO approach since priority is still placed on measureable and demonstrable outcomes. AMBO is unique, however, in that it weds education to evaluation and uses the enterprise as the medium to facilitate social change. Furthermore, it is a means to engage human beings in a process of inquiry at the workplace, while at the same time gives the individual the skills to engage in the process of inquiry throughout their lives. It is adult education which is characterized by its place of learning--the knowledge organization.

The goal of the AMBO model was to create a suitable, functionable means through which individual workers might meet their personal goals and affect social change through the organization in which they work. AMBO, hence, becomes the "linking pin" between individual change and social change. AMBO will alter and is expected to alter the institutional control system of the work environment--after all, democracy cannot begin with exploitive ends. When we, each of us, are seen as ends, this means that we are being used to attain someone else's goals. Therefore, AMBO is designed to shift from things (profits) to people and from external goals to

personally relevant goals. It also sees the enlargement of the individual's potentialities as a resource to the knowledge organization, to society, and to the individual. Participation, through this means, is, thus, seen as self-guidance of the learning person--one who is capable of continually monitoring and improving his/her own performance and that of his/her organization and society so as to create and innovate in an atmosphere of technical, social, and political turbulence.

Of course, it is recognized that apparent concern over the individual's needs to grow can deflect attention from organizational decisions and social needs. This process, therefore, calls for long-run social change through participation that is irrespective of short-run economic goals. In the short-run, AMBO merely seeks to build in the system of corporate goal-setting a sense of social consciousness; in the long-run, it aims not at power equilization but rather at a shift in the locus of power itself.

From the perspective of the individual worker, the reward for participation would be the recognition and support of individual needs, growth opportunities, and the ability to participate in corporate goal-setting from an informed position. It should be noted, however, that this could also be seen as a new form of behavioral control, i.e., those workers whose behavior does not please management or whose attitudes are antithetical to the organization would not receive developmental opportunities. Hence, in union situations, contract language would need to address this issue both for individuals and for groups. In any event, grievances might now revolve about who gets or did not get adequate development opportunities, educational counseling, experiential possibilities, etc. In addition, it should also be noted that an employee who fails to consent to developmental plans, thus hampering internal mobility designs, might be subject to automatic dismissal. Already a chemical firm dismisses employees who do not pass certain internal education programs within the first 6 weeks of hire! Thus, the new type of managerial control would rely on the opportunities for acquiring knowledge and hampering or encouraging the growth of employees and their increasing ability to undertake

decision-making responsibilities within the organization.

Finally, organizations need to think in terms of billions of people and twenty generations, in terms of man as a species from the aspect of eternity. AMBO is, hopefully, a beginning in this direction, a constructive step toward preventing cataclysm. It is intended to be an aid to help workers and management control and shape the future. It is a social intervention strategy that seeks to legitimize peaceful revolution through mutual negotiation and consensus-making at the workplace.

PART V

Facts, Conclusions, and Recommendations

AMBO provides the situation for the individual to arbitrate social meanings and, thereby, to manifest new realities. As an educational intervention strategy, AMBO endeavors to create an environment at the workplace which is built upon self-actualization of the individual rather than upon his/her manipulation. As a model, AMBO is appropriate to the current business climate since it is related to the political, social, and eco-technological milieu and is based upon founded learning theory.

The inability of the worker to self-actualize, i.e, to attain full potential through task performance and social participation in the shaping of his/her environment is a deficiency in the management system. This deficiency may exist either in the person's repetroire of behavioral responses, in the environment which supports these responses, or in both. In any event, it is the right of the individual to achieve opportunities for self-development at the workplace; and it is in the interest of management to increase the value of its human capital by correcting these deficiencies.

AMBO is an alternate model to improve on the management educational structures which have long been in use. Its goal is to merge an open systems model with a developmental model yielding a heuristic problem-solving process model that optimizes the discovery of appropriate strategies for dealing with the environment and with creating new environments. As a model, AMBO is an eclectic methodology which aims at being both systematic, humanistic, and theory-based yet "useful" and acceptable in the "real" world.

The unique relevance of AMBO is that it seeks to generalize from the individual's personal goals to those of the organization and the society so that changes in behavior will be formulated in terms of public interest as well as individual interests. Of course, perfect integration of the individual's goals to the wider environment will not be possible; however, it is certainly appropriate to consider a model which best seeks this integration.

It is recommended that the AMBO model be adopted by the targeted systems as an alternate model capable of yielding optimum adaptation to accelerated change and optimum utilization of internal resources. In this way, organizations will come to be seen as learning centers which provide leadership, inspiration, and mutual help to move individuals closer to self-directed lifelong learning.

#

FOOTNOTES

PART I

1. Cyril O. Houle, The Design of Education (San Francisco, CA: Jossey-Bass, 1972), p. 229.

2. Malcolm S. Knowles, "Adult Education: New Dimensions," Educational Leadership, (November, 1975), pp. 85-8.

3. Ibid., p. 87.

4. Op. cit.

5. Ibid., p. 230.

6. Malcolm S. Knowles, "Speaking from Experience: The Professional Organization as a Learning Community," Training and Development Journal, Vol. 33, No. 5. (May, 1979), p. 37.

7. Leonard Nadler, Ed.D., Corporate Human Resource Development (New York, NY: VanNostrand Reinhold Company, 1980), p. 34.

8. Cyril O. Houle, The Design of Education (San Francisco, CA: Jossey-Bass, 1972), p. 231.

9. Warren G. Bennis, et al., The Planning of Change (New York, NY: Holt, Rinehart and Winston, 1976), p. 393.

10. Op. cit.

11. Robert F. Mager, Goal Analysis (Belmont, CA: Fearon Publishers, Lear Siegler, Inc., 1972), p. 35.

12. Leonard Nadler, Ed.D., Corporate Human Resource Development (New York, NY: VanNostrand Reinhold Company, 1980), p. 60.

13. Cyril O. Houle, The Design of Education (San Francisco, CA: Jossey-Bass, 1972), p. 232.

14. Ibid., pp. 232-3.

15. Malcolm S. Knowles, "Speaking from Experience: The Professional Organization as a Learning Community," Training and Development Journal, Vol. 33, No. 5. (May, 1979), p. 39.

16. Bertram M. Gross, Organizations and their Managing (New York, NY: The Free Press, 1968), p. 610.

17. Allan M. Tough, The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning (Toronto, Ontario: Ontario Institute for Studies in Education, 1973), p. 8.

18. Malcolm S. Knowles, "Adult Education: New Dimensions," Educational Leadership, (November, 1975), p. 87.

19. George D. Odiorne, Management by Objectives: A System of Managerial Leadership (New York, NY: Pitman Publishing Corporation, 1965), p. 140.

20. Cyril O. Houle, The Design of Education (San Francisco, CA: Jossey-Bass, 1972), pp. 212-3.

21. Ibid., p. 234.

22. J. Elias, "Critique: Andragogy Revisited," pp. 125, 126. Undated xerox.

23. Paul Hersey and Kenneth H. Blanchard, Management of Organizational Behavior: Utilizing Human Resources (Englewood Cliffs, NJ: Prentice-Hall, 1977), p. 25.

24. Cyril O. Houle, The Design of Education (San Francisco, CA: Jossey-Bass, 1972), p. 211.

25. Leon McKenzie, Adult Education and the Burden of the Future (Washington, DC: R. F. Publishing Inc., University Press of America, 1978), p. 9.

26. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), p. 5.

27. Robert W. Ahern, Economics and Industrial Democracy: An International Journal, Vol. 2, No. 1 (London, England: Sage Publications, 1981), p. 42.

28. Gordon L. Lippitt, et al., Optimizing Human Resources: Readings in Individual and Organizational Development (Reading, MA: Addison-Wesley Publishing Co., 1971), p. 15.

29. J. Elias, "Critique: Andragogy Revisited," p. 120. Undated xerox.

30. Leon McKenzie, Adult Education and the Burden of the Future (Washington, DC: R. F. Publishing Inc., University Press of America, 1978), p. 63.

31. Ibid., p. 71.

32. Op. cit., pp. 132-3.

33. Ibid., p. 134.

34. Malcolm S. Knowles, "Issues in Adult Learning Psychology," Adult Leadership, Vol. 22 (1974), p. 300.

35. T. O. Jacobs, Leadership and Exchange in Formal Organizations (Alexandria, VA: Human Resources Research Organization, 1971), p. 125.

36. Leon McKenzie, Adult Education and the Burden of the Future (Washington, DC: R. F. Publishing Inc., University Press of America, 1978), p. 80.

37. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), p. 102.

38. Douglas McGregor, The Human Side of Enterprise (New York, NY: McGraw-Hill Book Company, Inc., 1960), pp. 48-9.

39. Ibid., p. 45.

40. Malcolm S. Knowles, "Issues in Adult Learning Psychology," Adult Leadership, Vol. 22 (1974), p. 301.

41. Ibid.

42. U.N.E.S.C.O. Institute for Education at Hamburg. James Lynch's Lifelong Education and the Preparation of Educational Personnel (Leeds, Great Britain: Knight and Forster, 1977), p. 19.

43. McGregor, op. cit., p. 24.

44. Leon McKenzie, Adult Education and the Burden of the Future, Washington, DC: R. F. Publishing Inc., University Press of America, 1978), p. 50.

45. Paul Tillich, The Courage to Be (New Haven, MA: Yale University Press, 1952), p. 9.

46. Op. cit., pp. 85-6.

47. Abraham Harold Maslow, Eupsychian Management: A Journal (Homewood, IL: Richard D. Irwin, Inc. and The Dorsey Press, 1965), p. 3.

48. Ibid., p. 2.

49. Ibid., pp. 60-73.

50. Paul Hersey and Kenneth H. Blanchard, Management of Organizational Behavior: Utilizing Human Resources (Englewood Cliffs, NJ: Prentice-Hall, 1977), p. 25.

51. Malcolm S. Knowles, The Modern Practice of Adult Education: Andragogy vs. Pedagogy (New York, NY: Association Press, 1970), p. 39.

52. Jerome Bruner in Elizabeth Bolton and Edward V. Jones' "Theory-Based Approaches to Learning: Implications for Adult Educators." Paper presented at the Annual Spring Meeting of the American Educational Research Association, San Francisco, California, April, 1979. ERIC document No. 171 922 CE 020 381, p. 18.

53. ____ Rogers, "Adult Learning," p. 55. Undated xerox.

54. Ibid., p. 60.

55. Allan M. Tough, The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning (Toronto, Ontario: Ontario Institute for Studies in Education, 1973), p. 8.

56. Gordon C. Godbey, Applied Andragogy: A Practical Manual for the Continuing Education of Adults (Philadelphia, PA: Pennsylvania State University Press, 1978), p. 19.

57. Chip R. Bell and Frederic H. Margolis, "Blending Didactic and Experiential Learning Methods," Training and Development Journal, Vol. 22 (August, 1978), p. 16.

58. Bernard M. Bass and James A. Vaughan, Training in Industry: The Management of Learning (Belmont, CA: Wadsworth Publishing Co., 1969), p. 53.

59. Ibid., p. 56.

60. Ibid., p. 64.

61. Ibid., p. 41.

62. Graham T. T. Molitor, "The Path to Post-Industrial Growth," The Futurist, Vol. XV, No. 2. (April, 1981), p. 23.

63. Francis Bacon in Eduard C. Lindeman's The Democratic Man: Selected Writings of Eduard C. Lindeman ed. by Robert Gessner (Boston, MA: Beacon Press, 1956), p. 31.

64. Alvin Toffler, Future Shock (New York, NY: Random House, 1970), p. 31.

65. Op. cit., pp. 37-8.

66. Ibid., p. 40.

67. Ibid., p. 41.

68. Ibid., pp. 83-4.

69. Toffler, op. cit., p. 120.

70. Ibid., p. 113.

71. AFCSME Bargaining Guidelines on VDTs and CRTs (Washington, DC: AFSCME). Undated xerox, n.d., n.p.

72. Eduard C. Lindeman's The Democratic Man: Selected Writings of Eduard C. Lindeman ed. by Robert Gessner (Boston, MA: Beacon Press, 1956), p. 47.

73. Edwin J. Singer, Training in Industry and Commerce (London, England: Institute of Personnel Management, 1969), p. 143.

74. R. Harrison's "Self-Directed Learning: A Radical Approach to Educational Design" in Human Growth Games ed. by Jerry L. Fletcher (Beverly Hills, CA: Sage Publications, 1978), p. 94.

75. Ibid.

PART III

1. Malcolm S. Knowles, "Speaking from Experience: The Professional Organization as a Learning Community," Training and Development Journal, Vol. 33, No. 5 (May, 1979), p. 39.

2. David E. Hartl, Faculty In-Service Training Pilot Program Evaluation (Catonsville Community College, MD: Conference held February - March, 1975), p. 25.

3. Winifred I. Warnart, "Building a Theory of Adult Learning: Toward a Total Person Model." (American University, 1980). Xerox copy of material to appear, n.p.

4. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), p. 110.

5. Ibid., p. 90.

6. Malcolm S. Knowles, The Modern Practice of Adult Education: Andragogy vs. Pedagogy (New York, NY: Association Press, 1970), p. 22.

7. Op. cit., pp. 77-9.

8. Malcolm S. Knowles, Self-Directed Learning: A Guide for Learners and Teachers (Chicago, IL: Association Press, 1975), p. 25.

9. Malcolm S. Knowles, "The Manager as Educator," Journal of Continuing Education and Training, Vol. 2, No. 2 (Farmingdale, NY: Baywood Publishing Co., November, 1972), p. 101.

10. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), pp. 178-9.

11. Malcolm S. Knowles, The Modern Practice of Adult Education: Andragogy vs. Pedagogy (New York, NY: Association Press, 1970), p. 184.

12. Malcolm S. Knowles, "The Manager as Educator," Journal of Continuing Education and Training, Vol. 2, No. 2 (Farmingdale, NY: Baywood Publishing Co., November, 1972), p. 101.

13. Hartl, op. cit., Appendix B, p. 4 of 19.

14. Ibid., Appendix B, p. 5 of 19.

15. Malcolm S. Knowles, The Modern Practice of Adult Education: Andragogy vs. Pedagogy (New York, NY: Association Press, 1970), p. 127.

16. John D. Ingalls, A Trainer's Guide to Andragogy (Washington, DC: U.S. Government Printing Office, 1973), p. 11.

17. Ibid., p. 101.

18. Ibid., p. 47.

19. Ibid., p. 92.

PART IV

1. Leonard Nadler, Ed.D., Corporate Human Resource Development (New York, NY: VanNostrand Reinhold Company, 1980), p. 98.

2. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), pp. 180-97.

3. Nancy Foy, "Action Learning Comes to Industry," Harvard Business Review, Vol. 55 (September, 1977), pp. 158-9.

4. Robert L. Leach, telephone conversation held February 13, 1981.

5. John D. Ingalls, A Trainer's Guide to Andragogy (Washington, DC: U.S. Government Printing Office, 1973), pp. 10-11.

6. John D. Ingalls, personal interview held March 24, 1981

7. John D. Ingalls, Model yet to appear.

8. Ibid., Model yet to appear.

9. George D. Odiorne, Management by Objectives: A System of Managerial Leadership (New York, NY: Pitman Publishing Corporation, 1965), pp. 70-1.

10. Ibid., p. 171.

11. Malcolm S. Knowles, The Modern Practice of Adult Education: Andragogy vs. Pedagogy (New York, NY: Association Press, 1970), p. 104.

12. Malcolm S. Knowles, "The Manager as Educator," Journal of Continuing Education and Training, Vol. 2, No. 2 (Farmingdale, NY: Baywood Publishing Co., November, 1972), p. 99

13. Edwin J. Singer, Training in Industry and Commerce (London, England: Institute of Personnel Management, 1969), p. 104.

SELECTED BIBLIOGRAPHY

AFSCME Bargaining Guidelines on VDTs and CRTs. Washington, DC: AFSCME, undated xerox.

Ahern, Robert W. Economics and Industrial Democracy: An International Journal. London, England: Sage Publications. Vol. 2, No. 1, February, 1981

Bass, Bernard M., and Vaughan, James. A. Training in Industry: The Management of Learning. Belmont, CA: Wadsworth Publishing Co., 1969.

Bell, Chip R., and Margolis, Frederic H. "Blending Didactic and Experiential Learning Methods," Training and Development Journal. Vol. 32, August, 1978.

Bennis, Warren G., Benne, Kenneth D., Chin, Robert, and Corey, Kenneth E. (eds.). The Planning of Change. 3rd. ed. New York, NY: Holt, Rinehart and Winston, 1976.

Bruner, Jerome in Bolton, Elizabeth B. and Jones, Edward V.'s "Theory-Based Approaches to Learning: Implications for Adult Educators." Paper presented at the Annual Spring Meeting of the American Educational Research Association, San Francisco, California, April, 1979. ERIC document No. 171 922 CE 020 381.

Cole, Bob. Telephone conversation held with Professor Cole of the University of Michigan Department of Japanese Studies regarding reward for skill upgrading, February 13, 1981

Elias, J. "Critique: Andragogy Revisited." Undated xerox.

Fletcher, Jerry L. (ed.). Human Growth Games. R. Harrison's "Self-Directed

Learning: A Radical Approach to Educational Design." Beverly Hills, CA: Sage Publications, 1978.

Foy, Nancy. "Action Learning Comes to Industry," Harvard Business Review. Vol. 55, September, 1977.

French, Wendell L., Bell, Cecil H. Jr., and Zawacki, Robert A. Organizational Development: Theory, Practice and Research. Dallas, TX: Business Publications, Inc., 1978.

Gellerman, Saul W. "Human Nature and Organizational Realities." B.N.A. Motivational Film Series No. 1. Undated xerox summary.

_____. "Motivation through Job Enrichment." B.N.A. Motivational Film Series No. 1. Undated xerox summary.

Godbey, Gordon C. Applied Andragogy: A Practical Manual for the Continuing Education of Adults. Philadelphia, PA: Pennsylvania State University Press, 1978.

Gross, Bertram M. Organizations and their Managing. New York, NY: The Free Press, 1968.

Hartl, David E. Faculty In-Service Training Pilot Program Evaluation. Catonsville Community College, MD. Conference held February - March, 1975. Xerox copy.

Hersey, Paul and Blanchard, Kenneth H. Management of Organizational Behavior: Utilizing Human Resources. 3rd. ed. Englewood Cliffs, NJ: Prentice-Hall, 1977.

Houle, Cyril O. The Design of Education. San Francisco, CA: Jossey-Bass, 1972.

Ingalls, John D. A Trainer's Guide to Andragogy. rev. ed. Washington, DC: U.S. Government Printing Office, 1973.

_____. Human Energy: The Critical Factor for Individuals and Organizations. Austin, TX: Learning Concepts, 1979.

_____. Personal interview, Kalamazoo, Michigan, March 24, 1981.

Jacobs, T. O. Leadership and Exchange in Formal Organizations. Alexandria, VA: Human Resources Research Organization, 1971.

Knowles, Malcolm S. "Adult Education: New Dimensions," Educational Leadership, November, 1975.

_____. "Issues in Adult Learning Psychology," Adult Leadership. Vol. 22, 1974.

_____. Self-Directed Learning: A Guide for Learners and Teachers. Chicago, IL: Association Press, 1975.

_____. "Speaking from Experience: The Professional Organization as a Learning Community," Training and Development Journal. Vol. 33, No. 5, May, 1979.

_____. The Adult Learner: A Neglected Species. Houston, TX: Gulf Publishing Co., 1973.

_____. "The Manager as Educator," Journal of Continuing Education and Training. Farmingdale, NY: Baywood Publishing Co., Vol. 2, No. 2, November, 1972.

_____. The Modern Practice of Adult Education: Andragogy vs. Pedagogy. New York, NY: Association Press, 1970.

Leach, Robert L. Telephone conversation regarding EIT program recently developed by cuttergrinders at a G.M.C. hiring unit, February 13, 1981.

Lindeman, Eduard C. The Democratic Man: Selected Writings of Eduard C. Lindeman. ed. by Robert Gessner. Boston, MA: Beacon Press, 1956.

Lippitt, Gordon L., This, Leslie E., and Bidwell, Robert G. Jr., Optimizing Human Resources: Readings in Individual and Organizational Development. Reading, MA: Addison-Wesley Publishing Co., 1971.

Mager, Robert F. Goal Analysis. Belmont, CA: Fearon Publishers, Lear Siegler, Inc., 1972.

Maslow, Abraham Harold. Eupsychian Management: A Journal. Homewood, IL: Richard D. Irwin, Inc. and The Dorsey Press, 1965.

McGregor, Douglas. The Human Side of Enterprise. New York, NY: McGraw-Hill Book Company, Inc., 1960.

McKenzie, Leon. Adult Education and the Burden of the Future. Washington, DC: R. F. Publishing, Inc., University Press of America, 1978.

Molitor, Graham T. T. "The Path to Post-Industrial Growth," The Futurist. Vol. XV, No. 2, April, 1981.

Nadler, Leonard, Ed.D. Corporate Human Resource Development. New York, NY: VanMostrand Reinhold Company, 1960.

Odiorne, George D. Management by Objectives: A System of Managerial Leadership. New York, NY: Pitman Publishing Corporation, 1965.

Rogers, _____. "Adult Learning." Xerox copy, n.d.

Seashore, Stanley E. Telephone conversation with Professor Seashore of the University of Michigan Institute for Social Research regarding pay for competence rather than just job assignment, February 13, 1981.

Singer, Edwin J. Training in Industry and Commerce. London, England: Institute of Personnel Management, 1969.

Tillich, Paul. The Courage to Be. New Haven, CT: Yale University Press, 1952.

Toffler, Alvin. Future Shock, New York, NY: Random House, 1970.

Tough, Allan M. The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning. 2nd. ed. Toronto, Ontario: Ontario Institute for Studies in Education, 1973.

U.N.E.S.C.O. Institute for Education at Hamburg. James Lynch's Lifelong Education and the Preparation of Educational Personnel. Leeds, Great Britain: Knight and Forster, 1977. Xerox copy of Monograph No. 5.

Walton, Richard D. "The Topeka Story: Part I: Teaching and Old Dog Food New Tricks," Part II: What's the Bottom Line?" The Wharton Magazine. Winter and Spring, 1978. Combined reprints received from Dr. Walton of the Wharton School of Business, the University of Pennsylvania.

_____. "Toward Setting the Record Straight on General Food's Topeka Work System." Boston, MA: Graduate School of Business Administration, Harvard University. Xerox copy of unpublished paper written November 5, 1976.

Warnart, Winifred I. "Building a Theory of Adult Learning: Toward a Total Person Model." American University, 1980. Xerox copy of article to appear.

Question No. 2: In what ways can an andragogical approach to Human Resource Development facilitate social change?

The Learning Organization:

Situs of Social Change

PART I

Introduction

Human Resource Development (HRD) deals with meeting the goals of the organization; Andragogical Human Resource Development (AHRD) deals with meeting people's goals through the organization. AHRD puts people first, profits second. HRD is a response to current situations; AHRD is the shaping of new situations. HRD is an educational strategy to further enfeeble, AHRD is a social change theory which views the organization as an open systems model, a focal point for organizational change and social action through personal growth and development.

Therefore, AHRD has a dual focus; namely, it focuses on the development of a living model in an andragogical manner, and it provides the policy statement for the implementation of the AMBO model.

Purpose of the Model

As a social intervention strategy, the goal of AHRD is to increase the sense of ownership between personal and company objectives through increased self-control and self-directedness of employees through the enterprise. Individuals do have the right to participate in social development, and the best way to do this is through influencing their organizations of work. This is the easiest way to exert social change based on knowledge; and at the very least, it gives workers the right to impact the chosen development path of their society and organizations. Bennis comments on this by stating that the decision-making function, as is held by the top echelons of management, is a retarding factor to [post-] industrial organizations.[1]

The purpose of this paper is thus to devise a legitimized means for the negotiation of corporation needs with social and personal needs. This is done

from two perspectives, i.e., one which regards the organization as a whole capable of greater potential if developing in an andragogical manner, and one which regards the organization as the situs of social change through its implementation of the AMBO model. This persepctive is supported by Marrow who comments that

> . . . there must be a relationship between intended individual behavior and the intended futures of the organization system so that they will be mutually supportive.[2]

Hence, AMBO is a new set of processes for developing individual life at the workplace; and these must be compatible with a new set of processes for sustaining and developing corporate life. AHRD attempts to do this through the linking together of personal, technical, and social change.

If companies are to be held responsible for social intervention, it is necessary, therefore, to devise a plan under which they may be held accountable. By looking at HRD from an andragogical view, the system can form objectives, implement goals, and obtain feedback in much the same way as would an individual. AHRD is simply the term used to refer to the organization's efforts to become both learner-centered and socially accountable in the process.

In the longrun, AHRD would mean reordering and restructuring the organization and society; but in the shortrun, its goal is to enable individuals, through their organizations--to acquire the potential and the power to shape the future and to restructure the present through commonly shared and designed modes of action.

As a management policy statement, AHRD seeks to establish new dimensions of relatedness between the person and the environment so as to increase the number of alternative resolutions that can be generated for particular problems or socially relevant decision-making. Hence, it is an effort to bring the individual, the organization, and the society into a more creative alignment. Encompassing the AMBO process model, AHRD attempts to converge all of the individual's and the organization's actions, intentions, and values at creative, humanistic forms of social change. As an educational/industrial policy strategy, AHRD is, thus,

designed to make organizations more able to deal with change itself.

As a social intervention strategy, the goal of AHRD policy is to support the negotiation of individual needs with corporate needs and social values through the implementation of the AMBO model, since no fundamental plan for good adult education can take place without an intimate interaction between it and a good managerial policy model.

At the systems level, AHRD recognizes the organization as a living organism with far needs and purposes aside from the profit motive and capable of growth and development in an andragogical manner--one capable of furthering the goals of democracy through the production of socially useful goods and services as we enter the post-industrial stage of development.

In summary, the AHRD organization shall represent the sum total of individual goals which are personally and socially motivated and whose authority for decision-making is based upon knowledge in order to manage and shape the changes that are occuring in the business environment. In addition, the AHRD organization personifies the continually adapting organization system appropriate to the nature of eco-tehnological development facing management today in its inevitable recognition of the need to serve the commong good.

Definition of Terms Used

The definitions, as presented in Question No. 1, are intended to also apply to this Question.

Need for the Model

AHRD in organizations is necessary for the following general reasons:

1. A new concept of man based on increased knowledge of his complex and shifting needs, which replaces an oversimplified, innocent pushbutton idea of man
2. A new concept of power, based on collaboration and reason, which replaces a model based on coercion and threat.
3. A new concept of organizational values, based on humanistic-democratic ideals, which replaces the depersonalized, mechanistic value system of bureaucracy.[3]

Bennis suggests that the organization itself learn how to learn, to acquire feedback mechanisms for learning performance, to self-renew, and to create its own destiny. To do this, Bennis would have the organization used "as the crucible for personal growth and the development of self-realization."[4] Supporting the development of a managerial policy which moves in this direction, McAlindon suggests that employee education should integrate "making a living" with "living a meaningful life."[5]

AHRD is, moreover, needed to replace the traditional structures for guiding and supporting effective citizen participation which industrialization has destroyed without building new structures in its place. Therefore, AHRD is proposed to be such a structure; and, as such, it aims to enable people rather than debar people to learn the ways of democracy while at the same time learning those skills and orientations of change agents who are committed to modifying the present structures of their life into a more democratic and humanistic image. Thus, AHRD is intended to integrate the individual and the society within the enterprise in new, self-validating ways. It is an effort to develop a new form of human support at the workplace and new social networks in the community. As we move toward controlling our own destiny, perhaps we can also move toward planned social change. If so, with each new technological improvement, the question to be asked is not whether it will make a profit but rather will it further the social changes which we find desirable. Hence, it is hoped that this plan will allow and aid in the transition from an industrial society to a new post-industrial social order.

To achieve a more democratic-humanistic environment at the work place, however, does not preclude materialism. This shift in perspective simply attempts to release the internal labor force's human energy in a more creative, innovative, and socially responsible manner. Present bureaucratic hierarchies, which characterize the prevailing structures of work and government, have removed the decision-making responsibilities from those on the bottom of the pyramid.

As a result, alienation and powerlessness increasingly pervade the lives of employee-citizens. Under these circumstances, quality production levels are very likely to continue to be low; and any "educational" efforts to increase these levels are not likely to be successful.

Since management has succeeded in ignoring the above fact, it will be necessary to create a new management policy which allows workers control over their own lives through greater control over the processes and purposes of production. This policy is, likewise, designed, through its support of AMBO implementation, to minimize coercion and exploitation and to maximize power and influence based upon expertise and social and worklife improvements. To move in this direction, it is, therefore, essential to create a new system of management which would be exemplified by the use of the AHRD model--one that is based upon knowledge rather than upon positional or political power, and one which recognizes that each person is different and capable of making a significant contribution to the organization's social capital. In the utilization of this new system, which allows for the growth and development of mature, healthy individuals, the organization would insure that it too is a healthy, lasting organization--one which exists for the ultimate good of a healthy society.

As a result of this model, industrial production will no longer dominate over life, rather it would serve to enhance it. The AHRD policy statement, in conjunction with the implementation of the AMBO model, would be the beginning on the pathway to the above goals. Perhaps in recognizing the need which these conditions present, Malcolm S. Knowles also charges the HRD developers to develop a new theory of HRD.[6] This is one such attempt. Hopefully, if we find a way of unifying and integrating our personal and social goals through the organizations in which we work, we will be less ready to tear down the social, governmental agencies, and business institutions which are our best guarantee of our continuing freedom.

Philosophical Foundations

In addition to the philosophical bases on which the AMBO model is predicated, decisions about HRD programs are also the reflections of the philosophies and practices of managers and, as such, reflect the kinds of questions managers ask as they move toward decision-making. For instance, under bureaucratic conditions, personal growth and/or satisfaction are seen as secondary to the productivity ethic, not the other way around. Bennis, in the following chart, contrasts bureaucratic solutions to Twentieth-Century conditions to help illustrate this point.

Table I

Problems, Bureaucratic Solutions and Twentiety-Century Conditions

Problem	Bureaucratic Solutions	New Twentieth-Century Conditions
Integration		
Integrating individual needs and organizational goals.	No solution because there is no problem. Individual vastly oversimplified, regarded as passive instrument. Tension between personality and role disregarded.	Emergence of human sciences and understanding of man's complexity. Rising aspirations. Humanistic-democratic ethos.
Social Influence		
Distributing power and sources of power and authority.	An explicit reliance on legal-rational power, but an implicit usage of coercive power. In any case, a confused, ambiguous, shifting complex of competence, coercion, and legal code.	Separation of management from ownership. Rise of trade unions and general education. Negative and unintended effects of authoritarian rule.
Collaboration		
Producing mechanisms for the control of conflict.	The "rule of hierarchy" to resolve conflicts between ranks and the "rule of coordination" to resolve conflict between horizontal groups. Loyalty.	Specialization and professionalization and increased need for interdependence. Leadership too complex for one-man rule or omniscience.
Adaptation		
Responding appropriately to changes induced by the environment.	Environment stable, simple, and predictable; tasks routine. Adapting to change occurs in haphazard and adventitious ways. Unanticipated consequences abound.	External environment of firm more turbulent, less predictable. Unprecedented rate of technological change.
Identity		
Achieving clarity, consensus, and commitment to organizational goals.	Primary goal of organization clear, simple, and stable.	Increased complexity due to diversity, multipurpose capability, intersector mobility. Creates role complexity, conflict, and ambiguity.
Revitalization		
Dealing with growth and decay.	Underlying assumption that the future will be certain and at least basically similar to the past.	Rapid changes in technologies, tasks, manpower, raw materials, norms and values of society, goals of enterprise and society all make constant attention to the process of revision imperative.

To address such an environment and to counter the effects of turbulence, management, of late, has initiated and placed peripheral emphasis on QCs, QWL programs, and other programs which may be termed "participation put-ons". In effect, however, although these programs are self-affirming and do provide some opportunities for self-growth, they do not provide opportunities for real worker solidarity nor social change which would be more consistent with a humanistic-democratic philosophical position.

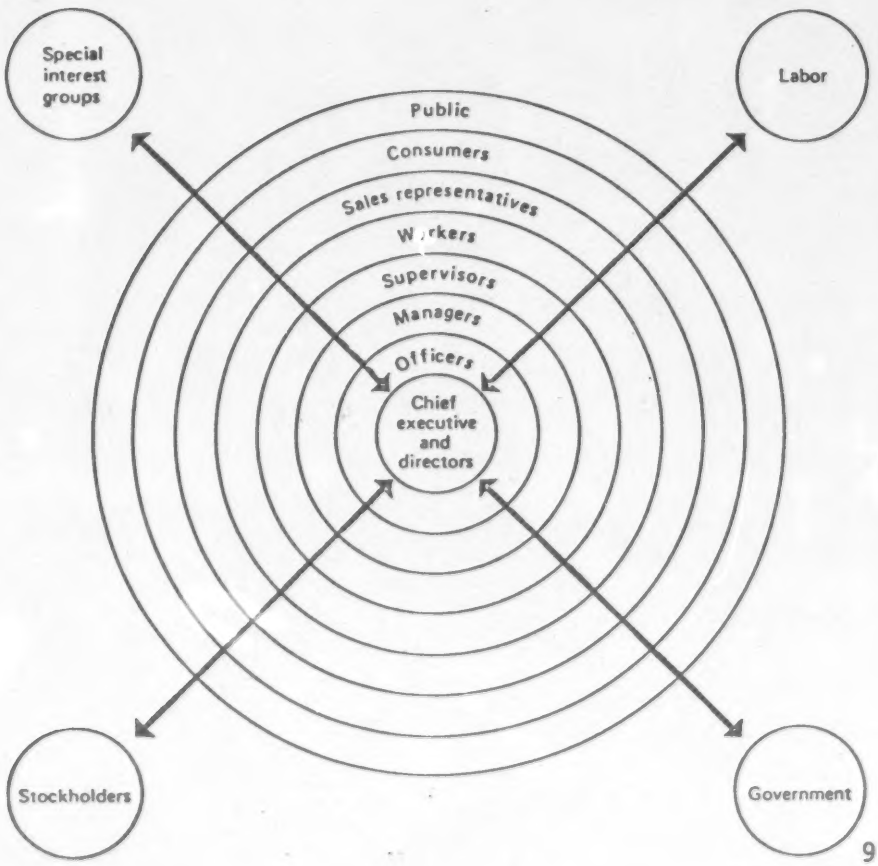
AHRD attempts to focus concern on this issue and to shift corporate concern to the problems of the human species, with problems of ethics, to the future of man and its relationship to the organization, and to goal clarification so as to enable it to more accurately comprehend reality, which is a prerequisite to good productive and social results. Under these conditions, the "best" enterprises will be those who produce more democratic (self-directing) persons, more socially responsible and less destructive citizens, and more people who can rule themselves, their organization, and their country in a more democratic manner. Hence, social motives must be a part of any model for either the individual or the organization as a whole, i.e., social responsibility must be a part of the AHRD plan if the ultimate aim is to rebuild a new, unalienating society with democratic growth for all based upon humanistic values. Finally, the organization must share this responsibility with the society since it reaps its benefits from the society.

To begin this process, it is necessary to create space in the organization for people to attain personal growth and for the organization to develop in terms of its social responsibilities. This was done through the AMBO model. To assess the over-all social responsibility of the organization, however, calls for a plan by which the organization may be held socially accountable to its consumers, employees, environment, and other stakeholders. To date, such a plan has been largely neglected; and social responsibilities have been successfully subordinated to economic pressures and profit goals. The result is a weakened domestic and international support for capitalism and for democratic values . . . and

this is especially true of those companies which continue to violate human rights, national soverignity, and environmental guardianship. To correct these problems, the new policy must rest on two foundations: (1) a humanistic philosophy and (2) a commitment to democratic values. To do this fully involves the informed and responsible participation of each and every adult who, at the workplace and in the community setting, act together in collaborative participation to shape their common destiny. Reacting to this, Ingalls proposes a circular organization chart representative of the self-regulating system. Under this system,

> . . . four external spectator groups--government, labor, stockholders, and special interest groups--would watch over the processes of interaction between and among the peripheral circles, intervening directly with the chief executive . . . to cope with abberations or abnormal situations.[8]

Figure 1. The Circular Organization



[9]

In conclusion, the concern for human values must begin at the workplace where it must be remembered that production, industrial growth, and technological advances are not ends in themselves, rather they are a means to an end--to improve the quality of life for all. Nadler readily acknowledges that a business, however, must make a profit in order to function.

> If, however, the only purpose of a company is to make a profit, it should expect to have a negative image and to receive abuse from the community in which it operates . . . . [Therefore,] more and more organizations are recognizing the need to be informed about and involved in social issues. There are many ways to do this, and their HRD operations provides another resource.[10]

Of course, the survival of the business may depend on making a useful product for a profit, but its more important function is to contribute to social evolution even though that function may impose an economic harship or demands upon the organization.[11] The AHRD policy can assist in this situation by aiding the organization as a whole to learn and to promote its over-all health picture by helping it to change its politics and to lessen the lag with which it deals with social change and its role in society. In this way, the organization would become the situs for the restructuring and creating of new values in such a way as to make each enterprise a laboratory for lifelong continued learning and the development of democracy. In fact, from this view, the actual function of the organization is to deal with the expressing of democracy through the production of socially needed goods and services done in a democratic manner. Such an organization will be characterized by a concern for the development of persons and society, a deep conviction for the worth of every person, and faith that people will make the right decisions if given the opportunity. Such an organization will place precedence of people over things and long-run social gain over short-run profits. It will emphasize the release of human potential over the control of human behavior. It will recognize that its relationship to the community is is direct proportion to its debt to it. Therefore, if an exploitive relationship exists, it will owe it a lot. It acknowledges that any enterprise or

person in a technocratic society has obligations to the whole of society and to its future and that, therefore, the corporation must develop in ways that are good and healthy for the society. Maslow summarizes this point well by stating that "A company that restricts its goals solely to profits . . . is getting a free ride."[12] To this, Knowles adds

> One of the misconceptions in our cultural heritage is the notion that organizations exist purely to get things done. This is only one of their purposes; it is their work purpose. But every organization is also a social system that serves as an instrumentality for helping people meet human needs and achieve human goals . . . . So organizations also have a human purpose.[13]

Rationale for AHRD

John Ingalls has found that

> Typically there is a tendency in many organizations to overemphasize the importance of organizational needs at the expense of the needs of individuals or the community . . . . What I am suggesting . . . is that we raise the importance of individual and community needs to the same level as those of the organization so that we can learn to avoid some of the more familiar self-defeating strategies that provide us with short-run profits and longer-run losses . . . . If we concentrate on meeting only the needs of special organizational interests we may find ourselves one day in an insoluable mess where satisfaction is no longer possible for anyone.[14]

He continues

> Unfortunately, the skills for resolving social conflict are often not present in the community, and there is still a pervasive need to spend vastly greater sums of tax money on controlling social unrest than on mounting sufficiently large-scale programs to effect economic improvements and to simultaneously develop community skill in preventing social conflicts from erupting in the first place.[15]

Therefore, an organizational policy is needed to establish a setting for guiding the organization from within, to interact with society and its labor force (rather than to manipulate or exploit it), and to negotiate roles and changing responsibilities while itself seeking opportunities for growth and development as a whole and in a humanistic-democratic manner.

In formulating the AHRD policy, therefore, the intent is to develop organizational and social integration with an internalized commitment to objectives

through consensual decision-making done in an informed manner. To do so, this policy must address management philosophy, political philosophy, organizational structure, and financial planning. Furthermore, it must be an over-all policy which seeks to establish the organizational climate for learning, a climate to which Knowles alludes in the following:

> I must confess that I have experienced a shift in my role as an adult educator away from managing the logistics of learning activities for collections of individuals and toward educating institutions, influencing the educative quality of whole environments . . . . There is both a need for the direct facilitation of the development of individuals and the indirect facilitation of their development through improving the educative quality of their environments.[16]

Thus, it may be concluded that the type of HRD program that is administered by the organization will be a crucial factor in determining which organizations survive into the year 2000. As an indication of who the survivors will be, Knowles characterizes organizations into two categories: static and innovative.

Table II

Some Characteristics of Static versus Innovative Organizations

DIMENSIONS	CHARACTERISTICS	
	Static Organization	Innovative Organizations
Structure	Rigid—much energy given to maintaining permanent departments, committees; reverence for tradition, constitution & by-laws. Hierarchical—adherence to chain of command. Roles defined narrowly property-bound.	Flexible—much use of temporary task forces; easy shifting of departmental lines; readiness to change constitution, depart from tradition. Multiple linkages based on functional collaboration. Roles defined broadly Property-mobile.
Atmosphere	Task-centered, impersonal Cold, formal, reserved. Suspicious.	People-centered, caring. Warm, informal, intimate. Trusting.
Management Philosophy and Attitudes	Function of management is to control personnel through coercive power. Cautious—low risk-taking. Attitude toward errors; to be avoided. Emphasis on personnel selection. Self-sufficiency—closed system regarding sharing resources. Emphasis on conserving resources. Low tolerance for ambiguity.	Function of management is to release the energy of personnel; power is used supportively. Experimental—high risk-taking. Attitude toward errors: to be learned from. Emphasis on personnel development. Interdependency—open system regarding sharing resources. Emphasis on developing and using resources. High tolerance for ambiguity.

Table II (continued)

Decision-making and Policy-making	High participation at top, low at bottom. Clear distinction between policy-making and policy-execution. Decision-making by legal mechanisms. Decisions treated as final.	Relevant participation by all those affected. Collaborative policy-making and policy-execution. Decision-making by problem-solving. Decisions treated as hypotheses to be tested.
Communication	Restricted flow—constipated. One-way—downward. Feelings repressed or hidden.	Open flow—easy access. Multidirectional—up, down, sideways Feelings expressed.

17

Elaborating on the assumptions underlying these two types of organizations, Knowles examines the implications between traditional management philosophy and those of the modern organization. (This material has been adapted to the Knowledge Organization by the author.)

Table III

Continuing Education: The Role of the Knowledge Organization

A Theoretical Framework

Traditional Assumptions	Modern Assumptions	Implications for the Knowledge Organization
1. The purpose of education is to produce a better worker	The purpose of education is to produce a competent person--one who can apply knowledge and skill in performance	It has a responsibility to see that models of competencies are developed for the various roles in the organization
2. Education is a process of transmission of knowledge and skills from a manager to a worker	Education is a process of acquisition of knowledge, skills, and attitudes by a learner with help from a facilitator and resource person	It has the responsibility to provide learning experiences to help workers acquire the skill of self-directed learning and to help managers acquire skills as facilitators of learning
3. Learning takes place most efficiently in a formal classroom or in an OJT setting	Learning takes place efficiently when learning resources of a wide variety are accessible to learners at their convenience in time and place	It has the responsibility to stimulate or operate delivery systems (non-traditional study programs, workshops, in-service programs, contract learning, multi-media packages, etc.) that make resources available to workers

Table III (continued)

4. A worker is fully developed when s/he performs the task as specified and required by management	With rapidly changing technology a person becomes obsolete unless s/he engages in a continuing program of self-development	It has a reponsibility to raise the consciousness of its members regarding the need for continuing personal and technical development and to reward self-development efforts
5. The education of the individual is the responsibility of the public. Industry is not in the education business	Industry has a great stake in the continuing education of adults in a world of accelerating changes and it is no longer wise to continue externalizing this cost factor	It has a responsibility to assure that its workers are engaging in continuing development, preferably voluntary
6. The learning process is the same for adults as in children; the pedagogical model is appropriate for both	Adults are different from children as learners in important respects; an andragogical model of education is more appropriate for adults	It has responsibility to inform its members about the concepts of adult learning--the andragogical model--and to apply them in its own educational activities.

18

Based on the above framework, the following healthy characteristics would be seen in the organization:

1. Objectives are widely shared by the members and there is a strong and consistent flow of energy toward these objectives

2. People feel free to signal their awareness of difficulties because they expect the problems to be dealt with, and they are optimistic that they can be solved

3. Problem-solving is highly pragmatic. In attacking problems, people work informally and are not preoccupied with status, territory, or second-guessing "what management will think." The boss is frequently challenged. A great deal of non-conforming behavior is tolerated

4. The points of decision-making are determined by such factors as ability, sense of responsibility, work load, timing, and requirements for professional and management development. Organizational level as such is not considered a factor

5. There is a notable sense of team play in planning, in performance, and in discipline--in short, a sharing of responsibility

6. The judgement of people lower down in the organization is [taken into account]

7. The range of problems tackled includes personal needs and human relationships

8. Collaboration is freely entered into. People readily request the help of others and are willing to give in turn. Ways of helping one another are highly developed. Individuals and groups compete with one another, but they do so fairly and in the direction of a shared goal

9. When there is a crisis, the people quickly band together in work until the crisis departs

10. Conflicts are considered important to decision-making and personal growth/ They are dealt with effectively, in the open. People say what they want and expect others to do the same

11. There is a great deal of on-the-job learning based on a willingness to give, seek, and use feedback and advice. People see themselves and others as capable of significant personal development and growth

12. Joint critique of progress is routine

13. Relationships are honest. People do care about one another and do not feel alone

14. People are "turned on" and highly involved by choice. They are optimistic. The workplace is important and fun (why not?)

15. Leadership is flexible, shifting in style and person to suit the situation.

16. There is a high degree of trust among people and a sense of freedom and mutual responsibility. People generally know what is important to the organization and what isn't

17. Risk is accepted as a condition of growth and change

18. "What can we learn from each mistake?"

19. Poor performance is confronted and a joint resolution sought

20. Organization structure, procedures, and policies are fashioned to help people get the job done and to protect the long-term health of the organization, not to give each bureaucrat his due. They are also readily changed

21. There is a sense of order, and yet a high rate of innovation. Old methods are questioned and often give way

22. The organization itself adapts swiftly to opportunities or other changes in its marketplace because every pair of eyes is watching and every head is anticipating the future

23. Frustrations are the call to action. "It's my/our responsibility to save the ship."[19]

Legal Precedent

There is legal precedent for utilizing the organization to provide the means for improving the general quality of life both at the workplace and in society.

The Swedish Work Environment Act sets the legal framework for this concept in its regulation of the conditions relevant to the well-being of people and the dignity of work in the industrial society. The following material is excerpted from a recent policy statement between the Swedish Metal Workers Union and the Supervisors Union:

> We, therfore, want to express a strong and sincere will to organize work [so that] tasks are more complex and meaningful . . . and to adapt the work to individual needs . . . to enlarge the area of creativity and self-determination in the work for each individual worker . . . . The motives for a change in this direction rest on demands for a richer job content and demands for increased quality of life. However, we are convinced that the effectiveness of our production system will also increase if this view of work organization is put into practice.[20]

This Act is covered by the Swedish Law of Co-determination which is based on the following notions: (1) labor has an equal right to influence all segments of the organization, (2) negotiation should be based on the results of production and methods of production. Under this Law, the workers are able to determine the development of the organization and to do so are insured a reasonable level of competence and insight in relation to organizational and social issues. Employees or their representatives are to be kept informed about systems used in planning and control, including changes in the system. They have the right to understand these systems and to influence their design. This is based on the belief that to improve the possibilities for employees to participate improves their commitment to change processes. Personal growth opportunities are, thus, legally mandated for all those who wish to broaden their experiences on work-related/societal issues.

In Germany, one union is currently directing its attention at controlling the type of technology that is brought into the plant with the view of creating jobs.

In the States, the Communications Workers of America are now planning a similar strategy in order to obtain a new power position through control of the technology used on the job.

Although the AHRD model seeks to subvert a direct power confrontation, it does aim at introducing into the workplace the means to facilitate the inevitable social changes which will come about as we move into the post-industrial stage. AHRD is a change strategy which allows for the shifting of power rather than the cooptation of it in a gradual and peaceful manner. Obviously, there will be short-term losses; but this is the price to be paid for improving social harmony and the long-range existence of the firm. The job itself, under this model, will make life more worth living and the eventual outcome of work itself will improve the conditions of the society.

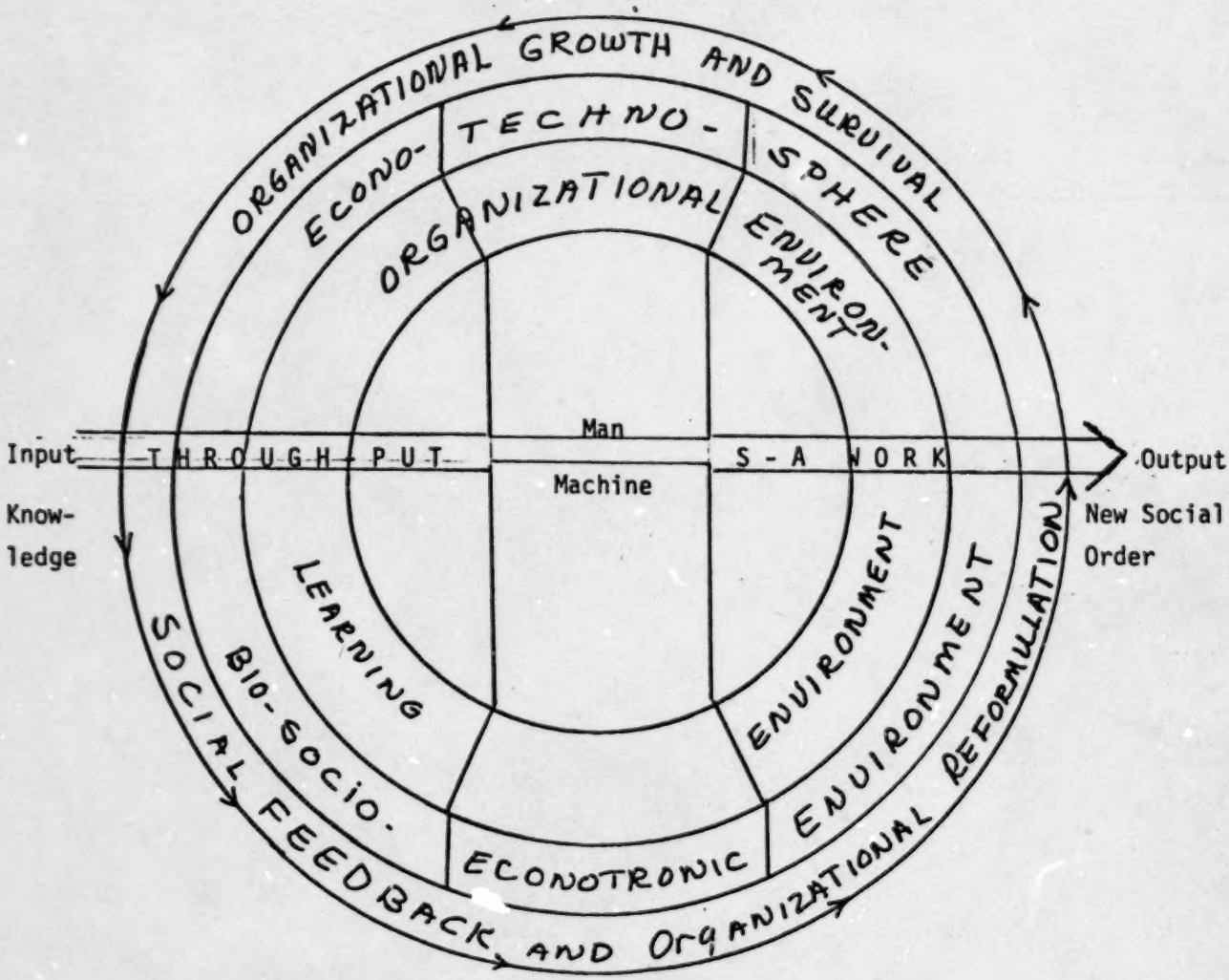
PART II

The System as a Whole

AHRD views the whole organization as a living system itself in need of continuing education for its revitalization and survival. From this perspective, one can examine the organization in terms of its relationship to social change and its own movement, over time, toward self-actualization through its assessment of the learning opportunities utilized in its internal and external environment. For instance, one could determine whether the organization is operating at the basic survival stage or whether it is moving toward self-actualization. Hence, from this perspective, the quality of social change taking place through the organization would be in direct relation to the managerial policy which either facilitates or inhibits social change through learning. The following model

is presented to illustrate this relationship in terms of the open systems model:

Figure 2. Systems Model of the Knowledge Organization



Survival (Organizational Maturation) Self-actualization

(Time Continuum)

This model views the organization as functioning within an environment and working with resources whose qualities change over time in relationship to the application of knowledge to technology production. Such an organization scans the environment,

assesses its resources, and through the best application of knowledge tries to make the best match between them and its goal-setting processes and output. How it makes the match between the environment and the resources depends on the level of knowledge inherent in the technology, ethics, and political processes. Thus, the environment and the system are jointly interdependent and efforts should, therefore, be made to jointly determine how this match is to come about in the most socially beneficial manner than be determined solely on a profit-oriented basis. The question will be what kind of a society do we want and what kinds of products do we want in it or what kinds of services do we expect from it. Such a system would respond to the question of what kind of quality of life do we want and how are we to balance profit maximization with our aspirations for a better quality of life.

This model also demonstrates that the organization itself needs to grow and to revitalize through developing its social capital and improving its effectiveness and personnel competencies while fitting itself over time to meet its social responsibilities. In doing so, however, the organization will gain in ability to deal with social and economic change and turbulance.

Ingalls summarizes the living systems model as follows:

> A living systems model of organizational management can eventually eliminate the negative effects of bureaucracy. When organization behavior is aimed at achieving both effective operating results and the satisfaction of human needs for participation and involvement, the product of organizational activity will be both profitable productivity and increased conscious awareness of human values and human potential.[1]

Finally, Knowles suggests that the entire organization itself be "seen as a system of learning resources."[2]

PART III

AHRD Policy Statement

Policy statements may be quite simple and direct, such as "Promotions shall come from within." Such a statement reflects a particular type of management philosophy and, at the same time, provides a guideline for making management decisions as they relate to promotions. AHRD policy, not so simply put, shall read as follows:

> Effort shall be made to distinguish between real and illusory personal, organizational, and societal interests; common interests that might be obscured by divergent interests and long-range dissatisfactions that might emerge from short-range satisfactions.
>
> Such effort will be characterized by the establishment of a climate that is both supportive of and conducive to self-directed learners. That climate, within the knowledge organization, shall be referred to as Andragogical Management-by-Objectives.
>
> In addition, Andragogical Human Resources Development policy hereby establishes the entire organization as a learning community whose continuum of learning over time shall measure the level of effectiveness of the developmental level of the system as a whole.
>
> To these ends, it is agreed that this Policy is founded on the following principles:
>
> 1. Personal, economic, and environmental integration
> 2. Democratization of all levels of the organization
> 3. The general improvement of the organizational and societal Quality of Life.
> 4. The individualization of work which is self-actualizing and the acknowledgement of the necessity to attain personal growth through task performance
> 5. The establishment of new work-related and community networks as they pertain both to learning and the creation of consensual social change
> 6. That management, labor, and government all share jointly in the responsibility to improve the society and those organizations which serve it.
>
> Therefore, decisions, as they pertain to the organization's learning environment, shall be effected and guided by the following considerations:
>
> 1. It is the intent of the AHRD policy to produce adults who can intelligently filter social, economic, and moral pressures through their organization, and who, at the same time, are responsive to changing these pressures

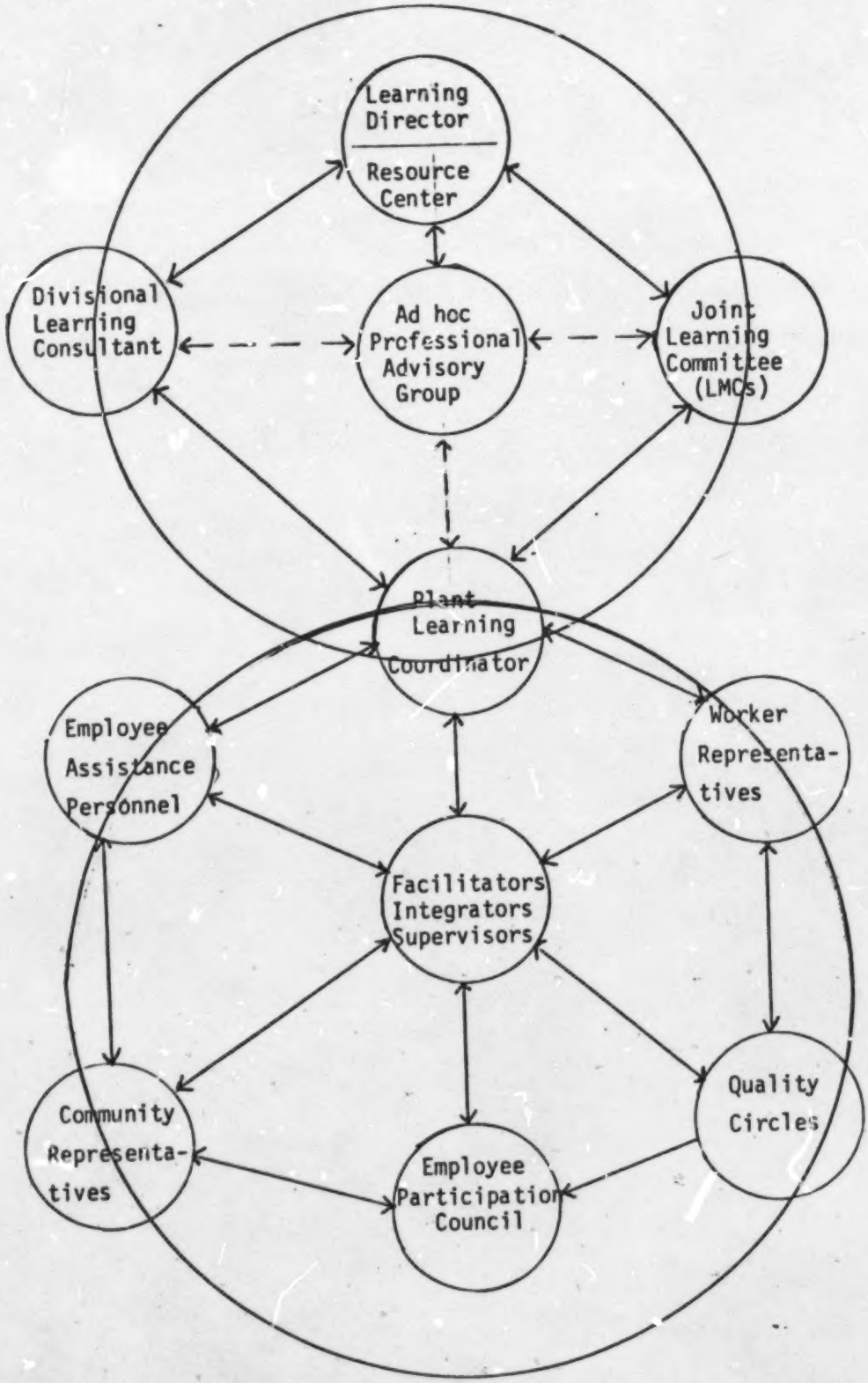
2. The need to awaken the employee to the realization that the environmental and social consequences of decisions taken by the enterprise can no longer be ignored or subverted; that there is an inter-locking relationship between personal needs and social needs, between the physical and the biotic in the narrow ecosystem and the wider biosphere; and that the direction taken by technological innovations will have a significant impact on pervailing structures both within and without the organization. Therefore, employees shall have opportunities to get to know themselves, their environment, and the processes and decisions of production which will impact them and on which processes and decisions they may have significant impact

3. It is the intent of the AHRD Policy statement to develop and to release to the fullest extent the capabilities and energies of people and their organization for the good of the community in which they work and in their society in general. To this end, this Policy aims at helping individuals transcend the constraints of their traditional organizational structures so as to more fully participate in social changes that are in harmony with the environment

4. It is not enough for education merely to transfer what is known or is embedded in the technology they use nor is it enough to help to develop the skills for further inquiry. All of this must be done with the purpose of translating these skills and abilities and creativeness into a positive self-directing attitude for the shaping and creating of social change.

To implement this Policy it is also recommended that the following organizational chart be added to existing organizational charts.

Figure 3. The AHRD Organizational Chart



Based on this chart, it shall be the duties of the Learning Director to

1. Cost out training programs
2. Conduct AHRD research and cost-benefit analyses
3. Coordinate employee needs and abilities with wider National and International resources
4. Maintain the organization's Resources Center
5. Maintain PDP files (computerized learning contracts and histories)
6. Report to Corporate Education Director

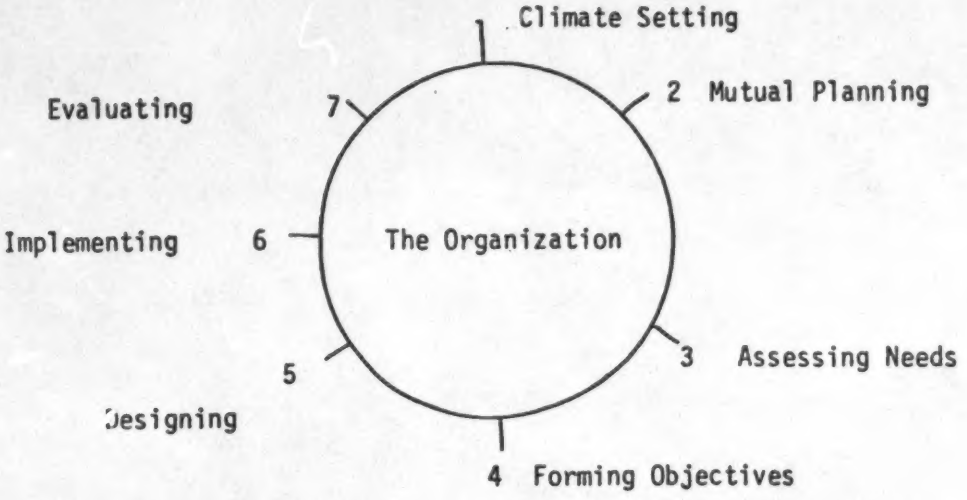
In conclusion, industry's stock response is that they are not in the education business. Its not their problem; its a public problem, so let the public solve it. This policy of externalizing the costs of continued education of the workforce is no longer practical nor one that is wise to ignore.

PART IV

An Andragogical Systems Model

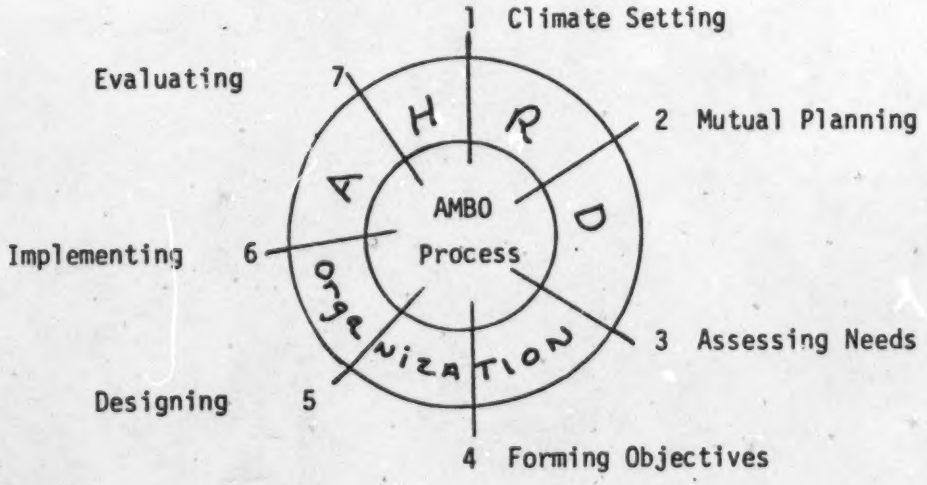
In the process of developing the AHRD policy, it became apparent that the whole organization could be regarded as a learning community and that, moreover, the andragogical process could be superimposed on the systems model. Although Ingalls originated this concept, he did not apply it directly to the system as a whole.[1] Therefore, the following schematic was designed to illustrate this concept:

Figure 4. The Andragogical Systems Model



The wheel-within-a-wheel illustrates the AMBO process operating with an AHRD organization.

Figure 5. The AMBO/AHRD Model



The wheel-within-a-wheel concept also illustrates the congruency between individual, organizational, and external environmental interests and needs. Finally, it indicates that AHRD policy must be integrated throughout the whole organizational system if it is to become useful.

Thus, examining from the systems level, the andragogical process presents the following data:

1. The AHRD policy statement establishes the organization as a learning community and, thereby, sets the learning climate as supportive of self-directed adult learners. The AHRD policy would be manifested through the daily attitude of workers and managers regarding their ability to achieve their own goals and to satisfy their own needs through their membership in this organization.

2. The AMBO design is legitimized as a means of mutual planning through which are filtered individual, organizational, and social needs.

3. Through examining the internal and external environment resources, the organization would break needs into a priority system differentiating between operational and educational needs.

4. In formulating objectives, these needs would consider institutional purposes, community needs, feasibility, and the interests of individuals as presented to the organization through a variety of means and sources.

5. In designing any organizational learning strategy, the objectives would be translated into both operational and educational designs, the former working toward practical decisions; the latter, toward consensus.

6. The designs would be implemented after the participative decision-taking by labor, public interest groups, stock/stakeholders, and informed, direct employee affirmation.

7. Evaluation would occur in terms of Human Resources Accounting or Social Accounting. This would facilitate the modification of any program or goal that is not performing effectively. A cost-benefit analysis might also be done to ensure a sound return on monies expended for developmental programs.

Sample Objectives Serving as the Basis for Evaluation at the Systems Level.

The following are samples of worthy goals for the organization as a whole:

1. The organization is capable of directing its own destiny as a result of informed participation by members of its internal and external environment in the choice of desired outcomes.

2. The learning process will be fused with the productive task in an environmentally harmonious manner.

3. Profit-oriented, short-run thinking will be surplanted by long-term thinking and social responsibility.

4. The organization will publically publish on a periodical basis its future employment projections, natural resources allocation plans,

5. To identify the goals of the organization, surveys will be taken and interviews will be utilized, as an outgrowth of the AMBO model, performance data will be presented, and labor and other interested parties will be given equal time to present and influence decision-making through company organs and other media.

6. Objectives will be compared with humanistic philosophy and human psychology to determine whether they are conguent with social change and the educational purposes of the organization.

7. Performance data will be organized to achieve organizational growth toward desired social change.

8. All educational designs shall build-in anticipatory planning, alternate strategies, and consensual commitment to goals, the quality implementation of these goals, and the evaluation of these goals in light of changing circumstances in the environment.

9. All organizational goals shall be determined by individual members of the organization who are prepared to vote intelligently on them. Voting may be done by computer or through the education committees as supervised by the joint learning councils.

10. The structures and roles instigated through the models are intended to open up management and its personnel to more democratic and participatory modes of control.

11. So as to insure informed participation, individuals will need to learn how to participate in an informed manner. They will need to have problem-solving knowledge, information, skills, sensitivities, and competencies relevant to the decision or problem at hand.

12. As more people learn and become competent, it is expected that this will save the company money, as it will be working more effectively and creatively. Performance data, therefore, must be compiled to assess this factor.

13. A hierarchy of socio-political needs needs to be developed. This includes issues ranging from clean air to the types of goods to be produced.

14. The evaluation of the system as a whole shall be shared with the people so as to lead to the refinement or reassessment of needs and interests at the organizational level.

15. To create an organization capable of anticipating crises rather than responding to them and one that is itself proactive rather than reactive.

Guidelines for the Successful Implementation of the AHRD Policy Model.

1. Work with influential forces in the organization.

2. Try to establish as many contacts with people at different levels of the organization as possible.

3. Try to work with those persons who are most interested in this program and who have as much freedom in managing their own decision-

making as possible given their position in the organization.

4. Try to establish a means of communication about the program at all levels of the organizations. This may include notices in the labor publications, house organs, and journals.

5. Link together people outside of the organization with those in the organization so that their activities are mutually supportive and reinforce one another.

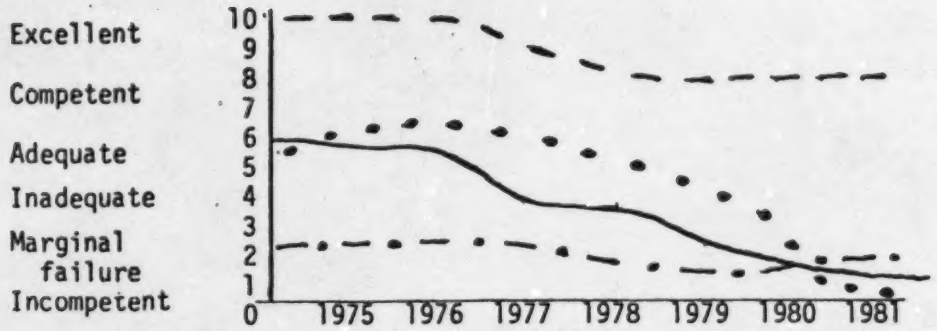
6. Keep abreast of technological innovation and link this together with organizational policies and practices.

7. Pair people with more experienced persons both inside and outside of the organization.

8. Develop career paths for all those who participate in the AMBO/AHRD process.

Evaluation. In the AHRD process of evaluation, it is necessary to discover which factors are supportive toward the movement of integration and social evolution and those which are not in order that they may be eliminated or weakened. To measure the effectiveness of the organization from this perspective, one must think in terms of goal models, i.e., does it effectively utilize scarce human and natural resources? Does it allow for democratic participation and strive to develop democratic practices in its internal and external environments? Does it produce socially beneficial goods and services which have a long-term beneficial impact on the human race? Is there less counter-productive activity in the organization? Is there a lowered level of anti-social behavior in the community? Are individuals in the community more socially responsive and participating in greater numbers in community decision-making and implementation? The following chart presents one method of evaluating the organization in one phase of social responsibility:

Figure 6. Use of Natural Resources



Legend:
_____ = Workers' ratings
_ _ _ _ = Management's rating
_ . _ . = Community's rating
. . . . = Public Agency or Governmental rating

Composite data of this type could (1) provide information relative to its internal and external environmental position, and (2) help distinguish whether the organization is moving toward self-actualization or self-extinction.

On an internal level, the firm is encouraged to utilize Human Resource Accounting (HRA), which is an

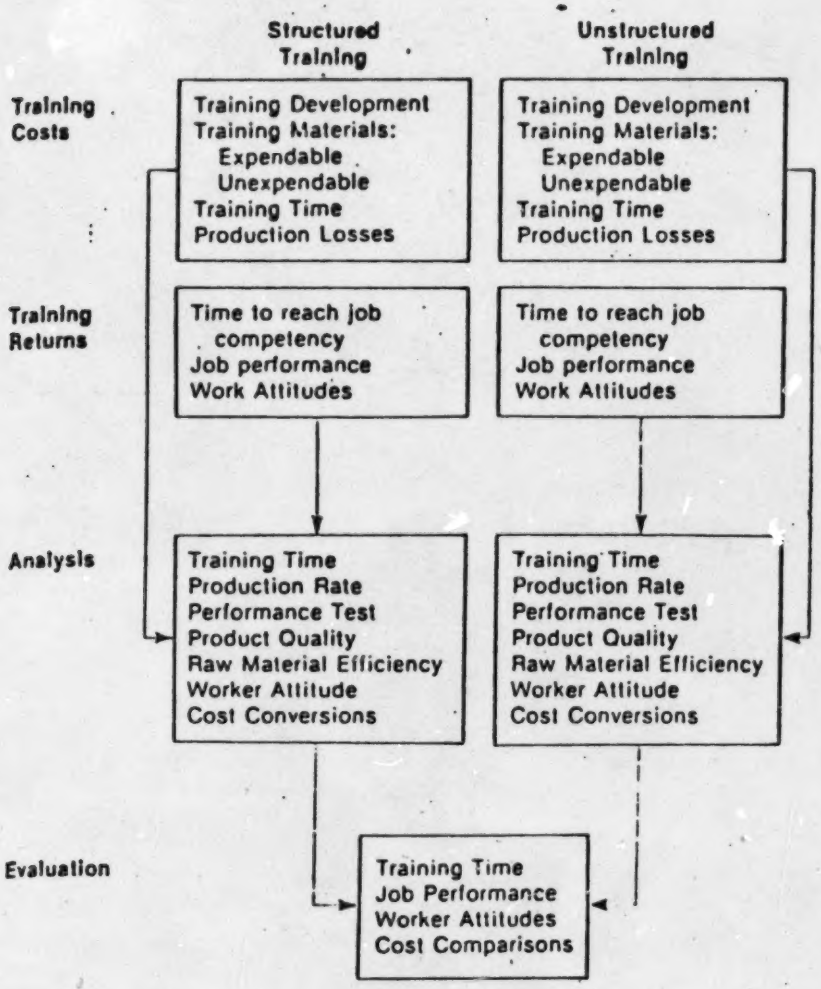
> . . . approach that brings together the field of human resources with the practice of accounting. It is an attempt to quantify the expense and investment which goes into human resources . . . . So far, the intent is not to see how much of this is returned to the organization in terms of revenue.[2]

Under this system, training is seen as an expense with a short-run return on investment; education is an investment on future return; and development is a long-term investment. Another method would be the use of Social Accounting procedures.

Where cost-benefit analysis is required, however, Cullen, et al., have prepared a suitable cost-effectiveness model. This model is presented below.

Table IV

Industrial Training Cost-Effectiveness Model



3

Finally, evaluation should be done in terms of program maturity, i.e., did it really have a chance to get off the ground?

Conclusion. AHRD, as a managerial policy statement, is a vision which unites learning and the business organization as society so that the over-riding value for the organizational activities is to create an environment which celebrates life. Of course, AHRD is not a utopian solution; but it does contain the utopian viewpoint necessary to effectively address the future.

On the systems level, if we are trying to change how men perceive reality as we see it expressed through their tools and artifacts, we must create space in the organization to teach them how to freely explore their potential and to utilize their own creative abilities and intellectual power to the extent that information and knowledge itself becomes power translated into social action. In this way, the organization will survive, grow, and benefit society.

PART V

Facts, Conclusions, and Recommendations

The fact that education has effectively been kept out of the workplace in America has allowed business to externalize yet another cost factor to the public sector, although it continues to reap its benefits. In addition, the continued exclusion of political and social problems from the workplace has now led to a critical condition of dissensus among American workers and citizens in general. To counteract this accelerating rate of educational incompetence, powerlessness, and political/social inaction, it is now necessary to bring a legitimized method of consensual conciliation into the workplace in an effort to integrate personal and social needs in a peaceful manner.

The aspirations of the individual for self-growth and the organization's need to self-actualize are demonstrably congruent within the andrgogical process as it is adapted to MBO and HRD.

It is, therefore, recommended that this plan be considered as a step toward gaining greater consensus and the utopian dream. Of course, it is unrealistic to assume that firms operating domestically will undertake such a plan willingly. To this end, it is proposed that some form of government incentive be initially offered to such firms willing to undertake the AMBO/AHRD model. Examples of such

incentives might include:

1. Tax credits to those firms who take major steps toward improving the whole of society by utilization of the AMBO/AHRD model

2. A payroll deducation for those companies who create jobs through their technologies . . . and a tax levy against those firms that fail to create enough jobs fast enough.

#

FOOTNOTES

PART I

1. Warren G. Bennis, Changing Organizations (New York, NY: McGraw-Hill Book Co., 1966), p. 20.

2. A. J. Marrow, David G. Bowers, and Stanley E. Seashore, Management by Participation: Creating a Climate for Personal and Organizational Development (New York, NY: Harper and Row, 1967), p. 20.

3. Warren G. Bennis, Organizational Development: Its Nature, Origins and Prospects (Reading, MA: Addison-Wesley Publishing Co., 1969), p. 22.

4. Ibid., pp. 22-3.

5. Harold R. McAlindon, "Education for Self-Actualization," Training and Development Journal, (October, 1981), p. 88.

6. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), p. 129.

7. Bennis, op. cit., pp. 26-7.

8. John D. Ingalls, Human Energy: The Critical Factor for Individuals and Organizations (Austin, TX: Learning Concepts, 1979), p. 120.

9. Ibid.

10. Leonard Nadler, Ed.D., Corporate Human Resource Development (New York, NY: VanNostrand Reinhold Company, 1980), p. 162.

11. Ibid., p. 178.

12. Abraham Harold Maslow, Eupsychian Management: A Journal (Homewood, IL: Richard D. Irwin and The Dorsey Press, 1965), p. 59.

13. Malcolm S. Knowles in John Ingall's Human Energy: The Critical Factor for Individuals and Organizations (Austin, TX: Learning Concepts, 1979), p. 58.

14. Ibid., p. 57.

15. Ibid., p. 58.

16. Malcolm S. Knowles, The Adult Learner: A Neglected Species (Houston, TX: Gulf Publishing Co., 1973), p. 107.

17. Ibid., p. 93.

18. Malcolm S. Knowles, "Speaking from Experience: The Professional Organization as a Learning Community," Training and Development Journal, Vol. 33, No. 5, (May, 1979), p. 40.

19. Jack K. Fordyce and Raymond Weil, Managing WITH People: A Manager's Handbook of Organizational Development Methods (Reading, MA: Addison-Wesley Publishing Company, 1971), pp. 11-13.

20. Bertil Gardell, "Legislation and Regulatory Programs: The Scandanavian Experience," in Alan McLean's (ed.) Reducing Occupational Stress, Addendum to May 10 - 12, 1977 NIOSH Proceedings (Washington, DC: U.S. Department of Health, Education and Welfare, April, 1978), Chapter 16, pp. 154-5.

PART II

1. John D. Ingalls, Human Energy: The Critical Factor for Individuals and Organizations (Austin, TX: Learning Concepts, 1979), p. 134.

2. Malcolm S. Knowles, "A Focus on Responsibility: Adult Educators Confront America's Future," in Ronald Gross and Samuel C. Brightman's Future Directions for a Learning Society (Exxon Educational Foundation and The College Board: Copies distributed to NAPCAE Members, 1978), p. 8.

PART IV

1. John D. Ingalls, Human Energy: The Critical Factor for Individuals and Organizations (Austin, TX: Learning Concepts, 1979), p. 131.

2. Leonard Nadler, Ed.D., Corporate Human Resource Development (New York, NY: Van Nostrand Reinhold Co., 1980), p. 89.

3. J. G. Cullen, S. A. Sawsin, G. A. Sisson, and R. S. Swanson, "Cost Effectiveness: A Model for Assessing the Training Investment," Training and Development Journal (January, 1978), p. 27.

SELECTED BIBLIOGRAPHY

Bennis, Warren G. Changing Organizations. New York, NY: McGraw-Hill Book Co., 1966.

_____. Organizational Development: Its Nature, Origins, and Prospects. Reading, MA: Addison-Wesley Publishing Co., 1969.

Cullen, J. G., Sawzin, S.A., Sisson, G. A., and Swanson, R. S. "Cost Effectiveness: A Model for Assessing the Training Investment," Training and Development Journal. January, 1978, pp. 24 - 9.

Fordyce, Jack K., and Weil, Raymond. Managing WITH People: A Manager's Handbook of Organizational Development Methods. Reading, MA: Addison-Wesley Publishing Co., 1971.

Ingalls, John D. Human Energy: The Critical Factor for Individuals and Organizations. Austin, TX: Learning Concepts, 1979.

Knowles, Malcolm S. "A Focus on Responsibility: Adult Educators Confront America's Future," in Gross, Ronald and Brightman, Samuel C.'s Future Directions for a Learning Society. Exxon Educational Foundation and The College Board, 1978.

_____. "Speaking from Experience: The Professional Organization as a Learning Community," Training and Development Journal, Vol. 33, No. 5, May, 1979, pp. 36-40.

_____. The Adult Learner: A Neglected Species. Houston, TX: Gulf Publishing Co., 1973.

Marrow, A. J., Bowers, David G., and Seashore, Stanley E. Management by Participation: Creating a Climate for Personal and Organizational Development. New York, NY: Harper and Row Publishers, Inc., 1967.

Maslow, Abraham Harold. Eupsychian Management: A Journal. Homewood, IL: Richard D. Irwin, Inc. and The Dorsey Press, 1965.

McAlindon, Harold R. "Education for Self-Actualization," Training and Development Journal, October, 1981, pp. 88.

Nadler, Leonard, Ed.D. Corporate Human Resource Development. New York, NY: VanNostrand Reinhold Company, 1980.

U.S. Department of Health, Education, and Welfare. NIOSH. Proceedings of Conference on Reducing Occupational Stress (Addendum). Bertil Gardell's "Legislative and Regulatory Programs: The Scandanavian Experience," April, 1978.

BIBLIOGRAPHY

(A Complete List of References Consulted for Both Questions)

AFSCME Bargaining Guidelines on VDTs and CRTs. Washington, DC: AFSCME. Undated xerox.

Ahern, Robert W. Economics and Industrial Democracy: An International Journal. London, England: Sage Publications. Vol. 2, No. 1, February, 1981

Bass, Bernard M., and Vaughan, James A. Training in Industry: The Management of Learning. Belmont, CA: Wadsworth Publishing Co., 1969.

Beckhard, Richard. Organizational Development: Strategies and Models. Reading, MA: Addison-Wesley Publishing Co., 1969.

Bell, Chip R. "Informal Learning in Organizations," Personnel Journal. Vol. 56, June, 1977, pp. 280-4.

_____. "Participative Training Designs," Education Technology. Vol. 16, No. 11, November, 1976, p. 40.

Bell, Chip R., and Margolis, Frederic H. "Blending Didactic and Experiential Learning Methods," Training and Development Journal. Vol. 32, August, 1978, pp. 16-21.

Bennis, Warren G. Changing Organizations. New York, NY: McGraw-Hill Book Co., 1966.

_____. Organizational Development: Its Nature, Origins, and Prospects. Reading, MA: Addison-Wesley Publishing Co., 1969.

Bennis, Warren G., Benne, Kenneth D., Chin, Robert, and Corey, Kenneth E. (eds.). The Planning of Change. 3rd. ed. New York, NY: Holt, Rinehart and Winston, 1976.

Bolton, E. B., and Jones, E. V. "Theory-Based Approaches to Learning: Implications for Adult Educators." A paper presented at the American Educational Research Association. San Francisco, CA, 1979. [ERIC document No. ED 171 922].

Bukowski, Richard. Personal interview with Mr. Bukowski of a Dow Chemical hiring unit regarding internal mobility through mandatory employee education, February 24, 1981.

Cook, Michael H. (ed.). "Training Isn't a Cost--It's a Blue-Chip Investment," Training and Development Journal, February, 1980, p. 4.

Cole, Robert. Telephone conversation held with Professor Cole of the University of Michigan Department of Japanese Studies regarding reward for skill up-grading. February 13, 1981.

Craig, Robert L. (ed.). Training and Development Handbook: A Guide to Human Resource Development. Madison, WI: American Society for Training and Development, 1980.

Cullen, J. G., Sawzin, S. A., Sisson, G. A., and Swanson, R. S. "Cost Effectiveness: A Model for Assessing the Training Investment," Training and Development Journal. January, 1978, pp. 24-9.

Cumming, Robert Denoon. (ed.). The Philosophy of Jean-Paul Sartre. New York: NY: Random House, 1965.

Drucker, Peter. Management: Tasks, Responsibilities, Practices. New York, NY: Harper and Row, 1973.

Elias, J. "Critique: Andragogy Revisited." Undated xerox.

Elias, John L., Ed.D., and Merriam, Sharan, Ed.D. Philosophical Foundations of Adult Education. Huntington, NY: Robert E. Krieger Publishing Co., 1980.

Fletcher, Jerry L. (ed.). Human Growth Games. R. Harrison's "Self-Directed Learning: A Radical Approach to Educational Design." Beverly Hills, CA: Sage Publications, 1978.

Fordyce, Jack K., and Weil, Raymond. Managing WITH People: A Manager's Handbook of Organizational Development Methods. Reading, MA: Addison-Wesley Publishing Co., 1971

Foy, Nancy. "Action Learning Comes to Industry," Harvard Business Review. Vol. 55, September, 1977, pp. 158-68.

French, Wendell L., Bell, Cecil H., Jr., and Zawacki, Robert A. Organizational Development: Theory, Practice, and Research. Dallas, TX: Business Publications, Inc., 1978.

Gellerman, Saul W. "Human Nature and Organizational Realities." B.N.A. Motivational Film Series No. 2. Undated xerox summary.

_____. "Motivation through Job Enrichment." B.N.A. Film Series No. 1. Undated xerox summary.

General Motors Appraisal and Assessment Forms. Forms provided courtesy of a General Motors hiring unit, February 24, 1981

Gilbert, Thomas F. Human Competence: Engineering Worthy Performance. New York, NY: McGraw-Hill Book Co., 1978.

Gillette, Margaret. Educational Technology: Toward Demystification. Ontario, Canada: Prentice-Hall of Canada, 1973.

Godbey, Gordon C. Applied Andragogy: A Practical Manual for the Continuing Education of Adults. Philadelphia, PA: Pennsylvania State University Press, 1978.

Gordon, Morton. "Adult Education in the United States." A paper presented at the Conference on Contemporary Issues in Adult Education. Alberta, Canada, March 9 - 11, 1978. Xerox copy.

Griffin, V. "Self-Directed Adult Learners and Learning," Learning. Canadian Association for Adult Education, Vol. 2, 1978, pp. 6-8.

Gross, Bertram M. Organizations and their Managing. New York, NY: The Free Press, 1968.

Gross, Ronald, and Brightman, Samuel C. "A Focus on Responsibility: Adult Educators Confront America's Future," Future Directions for a Learning Society. New York, NY: Exxon Educational Foundation and The College Board, 1978. (Xerox copy distributed to NAPCAE members.)

Hardin, Garrett. Exploring New Ethics for Survival: The Voyage of the Spaceship Beagle. New York, NY: Viking Press, 1972.

Harragan, Betty Lehan. Games Mother Never Taught You: Corporate Gamesmanship for Women. New York, NY: Rawson Associates Publishers, Inc., 1977.

Hartl, David E. Faculty In-Service Training Pilot Program Evaluation. Catonsville Community College, MD. Conference held February - March, 1975. Xerox copy.

Havighurst, Robert J. Developmental Tasks and Education. 3rd. ed. New York, NY: David McKay Company, Inc., 1972.

Hersey, Paul, and Blanchard, Kennth H. Management of Organizational Behavior: Utilizing Human Resources. 3rd. ed. Englewood Cliffs, NJ: Prentice-Hall, 1977.

Houle, Cyril O. The Design of Education. San Francisco, CA: Jossey-Bass, 1972.

Ingalls, John D. A Trainer's Guide to Andragogy. rev. ed. Washington, DC: Government Printing Office, 1973.

_____. Human Energy: The Critical Factor for Individuals and Organizations. Austin, TX: Learning Concepts, 1979.

_____. Personal interview held in Kalamazoo, Michigan, March 24, 1981

Jacobs, T. O. Leadership and Exchange in Formal Organizations. Alexandria, VA: Human Resources Research Organization, 1971

Joyce, Bruce R. "Learning how to Learn," Theory into Practice. Columbus, OH: The Ohio State University Press, Vol. XIX, No. 1, Winter, 1980.

Kidd, James Robbins. How Adults Learn. New York, NY: Association Press, 1959.

Knowles, Malcolm S. "A Focus on Responsibility: Adult Educators Confront America's Future, in Gross, Ronald and Brightman, Samuel C.'s Future Directions for a Learning Society. Exxon Educational Foundation and The College Board, 1978.

_____. "Adult Education: New Dimensions," Educational Leadership. November, 1975, pp. 85-8.

_____. "Issues in Adult Learning Psychology," Adult Leadership. Vol. 22, 1974, pp. 300-16.

_____. Self-Directed Learning: A Guide for Learners and Teachers. Chicago, IL: Association Press, 1975.

_____. "Speaking from Experience: The Professional Organization as a Learning

Community," Training and Development Journal. Vol. 33, No. 5, May, 1979, pp. 36-40.

_____. The Adult Learner: A Neglected Species. Houston, TX: Gulf Publishing Co., 1973.

_____. "The Manager as Educator," Journal of Continuing Education and Training. Farmingdale, NY: Baywood Publishing Co., Vol 2, No. 2, November, 1972, pp. 97-105.

_____. The Modern Practice of Adult Education: Andragogy vs. Pedagogy. New York, NY: Association Press, 1970.

Knox, Allan B. Adult Development and Learning. San Francisco, CA: Jossey-Bass, 1977.

Lasch, Chris. The Culture of Narcissism: American Living in an Age of Diminishing Expectations. New York, NY: Warner Books, 1979.

Leach, Robert L. Telephone interview regarding EIT program recently developed by cuttergrinders at a General Motors Corporation hiring unit, February 13, 1981

Likert, Rensis. New Patterns of Management. New York, NY: McGraw-Hill Book Co., 1961

Lindeman, Eduard C. The Democratic Man: Selected Writings of Eduard C. Lindeman. ed. by Robert Gessner. Boston, MA: Beacon Press, 1956.

Lippert, F. G. "Training: The No. 1 Manpower Management Function," Training and Development Journal. Vol. 31, August, 1977, pp. 20-2.

Lippitt, Gordon L., This, Leslie E., and Bidwell, Robert G., Jr. Optimizing Human Resources: Readings in Individual and Organization Development. Reading, MA: Addison-Wesley Publishing Co., 1971.

London, J. "Adult Education in the 70s: Promise or Illusion?" An Essay Review of Malcolm S. Knowles' The Modern Practice of Adult Education: Andragogy vs. Pedagogy. Undated xerox.

Mager, Robert F. Goal Analysis. Belmont, CA: Fearon Publishers, Lear Siegler, Inc., 1972.

Marrow, A. J., Bowers, David G., and Seashore, Stanley E. Management by Participation: Creating a Climate for Personal and Organizational Development. New York, NY: Harper and Row Publishers, Inc., 1967.

Maslow, Abraham Harold. Eupsychian Management: A Journal. Homewood, IL: Richard D. Irwin, Inc. and The Dorsey Press, 1965.

McAlindon, Harold R. "Education for Self-Actualization," Training and Development Journal, October, 1981, p. 88.

McCall, Morgan, Jr. Power, Influence and Authority: The Hazards of Carrying a Sword. Greensboro, NC: Center for Creative Leadership, Technical Report No. 10, August, 1978.

McGregor, Douglas. The Human Side of Enterprise. New York, NY: McGraw-Hill Book Company, Inc., 1960.

McKenzie, Leon. Adult Education and the Burden of the Future. Washington, DC: R. F. Publishing, Inc., University Press of America, 1978.

_____. (ed.). "Participation Training: A System for Adult Education," Viewpoints. Vol. 51, No. 4, July, 1975, pp. 1-33.

Molitor, Graham T. T. "The Path to Post-Industrial Growth," The Futurist. Vol. XV, No. 2, April, 1981.

Nadler, David A., Hackman, Richard J., and Lawler, Edward E., III. Managing Organizational Behavior. Boston, MA: Little, Brown and Co., 1979.

Nadler, Leonard, Ed.D. Corporate Human Resource Development. New York, NY: VanNostrand Reinhold Company, 1980.

Odiorne, George D. Management by Objectives: A System of Managerial Leadership. New York, NY: Pitman Publishing Corporation, 1965.

Peters, John M. and Associates. Building an Effective Adult Education Enterprise. San Francisco, CA: Jossey-Bass, 1980.

Randall, John S. "You and Effective Training: Part 2. The Learning Process," Training and Development Journal. June, 1978, pp. 10-12.

Rifkin, Jeremy, and Barber, Randy. The North Will Rise Again: Pensions, Politics, and Power in the 1980s. Beacon, NY: Beacon Press, 1978.

Rogers, _____. "Adult Learning," p. 55. Xerox copy, n.d.

Schein, Edgar H., and Bennis, Warren G. Personal and Organizational Change through Group Methods. New York, NY: John Wiley and Sons, Inc., 1965.

Seashore, Stanley E. Telephone conversation with Professor Seashore of the University of Michigan Institute for Social Research regarding pay for competence rather than just job assignment, February 13, 1981.

Singer, Edwin J. Training in Industry and Commerce. London, England: Institute of Personnel Management, 1969.

Special Issue: Collaboration in Work Settings: A Journal of Applied Behavioral Science. NTL Institute for Applied Behavioral Science. Vol. 13, No. 3, July - August - September, 1977.

Suessmuth, Patrick, and Stengels, Marit. "Goal Setting and Feedback," Training in Business and Industry. Vol. 10, No. 5, May, 1973, pp. 48-9.

Teel, K. S. "Self-Appraisal Revisited," Personnel Journal. Vol. 57, No. 7, 1978, pp. 364-7.

Thorndike, Edward Lee, Bregman, Elsie O., Tilton, Warren J., and Woodyard, Ella. Adult Learning. New York, NY: Macmillan Book Company, 1928.

Tillich, Paul. The Courage to Be. New Haven, CT: Yale University Press, 1952.

Toffler, Alvin. Future Shock. New York, NY: Random House, 1970.

Tough, Allan M. The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning. 2nd. ed. Toronto, Ontario: Ontario Institute for Studies in Education, 1973.

_____. "Two Movements Interacting: Human Potential and Adult Education," Adult Leadership. Vol. 21, March, 1972, pp. 335-6.

Tyler, Ralph W. Basic Principles of Curriculum and Instruction. Chicago, IL: The University of Chicago Press, 1969.

U.N.E.S.C.O. Institute for Education at Hamburg. James Lynch's Lifelong Education and the Preparation of Educational Personnel. Leeds, Great Britain: Knight and Forster, 1977, p. 19. Xerox copy of Monograph No. 5.

U.S. Department of Health, Education, and Welfare. NIOSH. Proceedings of Conference on Reducing Occupational Stress (Addendum). Bertil Gardell's "Legislative and Regulatory Programs: The Scandanavian Experience," April, 1978.

U.S. Senate, 93rd Congress, 2nd Session of S. 1167, Part A Appendix to Part 4. Industrial Reorganization Act (The Snell Report): Hearings before the Subcommittee on Antitrust and Monopoly on the Committee of the Judiciary. Washington, DC: Government Printing Office, 1973.

Verduin, J. R., Miller, Harry G., and Greer, Charles E. Adults Teaching Adults: Principles and Strategies. Austin, TX: Learning Concepts, 1977.

Walker, Kenneth F. "Worker Participation in Management--Problems, Practice, and Prospects." Geneva, Switzerland: International Labor Organization. Xerox of paper prepared for the I.L.O. [n.d.]

Walton, Richard D. "The Topeka Story: Part 1: Teaching an Old Dog Food New Tricks," "Part II: What's the Bottom Line?" The Wharton Magazine. Winter and Spring, 1978. Combined reprints received from Dr. Walton of the Wharton School of Business, The University of Pennsylvania.

_____. "Toward Setting the Record Straight on General Food's Topeka Work System." Boston, MA: Graduate School of Business Administration, Harvard University. Xerox copy of unpublished paper written November 5, 1976, p. 3.

Warnart, Winifred I. "Building a Theory of Adult Learning: Toward a Total Person Model." American University, 1980. Xerox copy of article to appear.

Williams, J. C. Managerial Education--A Personal Approach." Waco, TX: Baylor University, 1974. Xerox copy of unpublished paper.